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Editorial**Hypertension: Today's Most Burning Issue****Mohsin Masud Jan**

Editor

High blood pressure, also known as hypertension, is common around the world and the leading cause of heart disease, but many people are unaware that they have it, a new study shows.

The international team of researchers noted that this is true for wealthy, developed nations as well as low-income countries. And despite the availability of drugs to control high blood pressure, many people who do know they have the condition are not being properly treated. "Blood pressure-lowering drugs are generally inexpensive and commonly available treatments," senior study author Dr. Salim Yusuf, a professor of medicine at McMaster University's Michael G. DeGroote School of Medicine in Hamilton, Ontario, Canada, said in a university news release. "However, only a third of patients commenced on treatment are on enough treatment to control their blood pressure. This is worst in low-income countries, but significant in high- and middle-income countries, too."

The researchers led by the Population Health Research Institute of McMaster University and Hamilton Health Sciences examined data on 154,000 adults aged between 35 and 70. The participants, who did not have a history of heart disease or stroke, were from 17 different countries of varying economic strength.

All participants had their blood pressure and medication use monitored. The researchers also collected information on their age, gender, level of education, and other risk factors, including whether participants knew they had high blood pressure. "Study indicates over half of people with hypertension are unaware of their condition and, amongst those identified, very few are taking enough treatment to control their blood pressure," Study author Dr. Clara Chow, Associate professor of medicine at Sydney University and the George Institute for Global Health in Australia. The study published in the Journal of the American Medical Association, found only 46.5 percent of those with high blood pressure were aware of their condition. Just 32.5 percent of patients who were aware of the fact that they had high blood pressure were effectively keeping their condition under control. Improvements are needed around the world in the diagnosis and treatment of high blood pressure, the researchers concluded.

Differences in blood pressure readings taken from the left and right arms may be a sign of heart and blood vessel disease and death risk, according to a new review of recent research.

Researchers found that a difference of 15 points or more in the readings between the left and right arms raised the risk of peripheral vascular disease, a

narrowing or blockage of the arteries, by two and a half times.

Researchers say the results suggest that doctors should routinely compare blood pressure readings from both arms to prevent unnecessary deaths.

Although the practice of taking blood pressure from both arms as a part of heart disease screening has been adopted in Europe, and some guidelines in the U.S. recommend it, American Heart Association spokesman Richard Stein, says it's not routinely done in the U.S.

British researchers examined 20 studies covering differences in systolic blood pressure and the results, published in the Lancet journal of England, showed that a difference of 15 points are more. The risk of cerebrovascular disease was 80% higher and the risk of dying from heart and circulatory diseases rose by 70%. The risk of peripheral vascular disease was also higher when there was a difference in BP readings of 10 points or more.

Researchers analyzed the health records of nearly 250,000 children, aged 6 to 17, in California, and found those who were overweight were twice as likely as normal weight children to have high blood pressure (hypertension). The risk was four times higher in moderately obese children and teens, and 10 times higher in those who were extremely obese, according to the study, which was published October 2010 in the Journal of Clinical Hypertension.

The researchers also found that 10 percent of extremely obese children and teens have high blood pressure and nearly half of them have occasional blood pressure readings in the high range. "This study's findings suggest that pediatricians need to be particularly vigilant about screening overweight and obese children for hypertension because high blood pressure can be asymptomatic for many years," study lead author Corinna Koebnick, a researcher at Kaiser Permanente Southern California's Department of Research and Evaluation.

Another researcher agreed. "High blood pressure in children is a serious health condition that can lead to heart and kidney disease," study co-author Dr. David Cuan, of the department of pediatrics at Kaiser Permanente Riverside Medical Center, in Riverside, Calif., said in the news release. "While it is generally recommended that pediatricians measure blood pressure in children 3 years and older at every health care visit, this study shows the importance of screening overweight and obese young people in particular as they have an increased likelihood of hypertension," Cuan said. The study findings also suggest that current classification methods for overweight and obesity in

children may be an effective tool for identifying children at high risk for high blood pressure. The researchers found that being classified as overweight was an indicator for pre-hypertension, and being classified as obese was an indicator for hypertension.

Obesity and high blood pressure lead to faster mental decline in the over-50s, researchers warn. A study shows that being fat and having other risk factors for heart disease and diabetes accelerates the loss of memory and other cognitive skills.

Over the course of a decade, obese participants' brains aged 3.8 years more than those of a healthy weight.

The fattest participants had a 22.5 per cent faster drop-off in test scores compared with those who were a healthy size and had fewer risk factors. Experts warn that obesity in middle-age could be a major risk factor for developing dementia in later life, as well as conditions such as diabetes.

The claim has been strengthened after the study by scientists at the French medical research institution INSERM examining the mental skills, body mass index and general health of 6,401 adults with an average age of 50.

Researchers took note of so-called 'metabolic abnormalities' such as high blood pressure, low levels of 'good' cholesterol, high blood sugar and whether participants took diabetes medication. A third of the participants had two or more of these risk factors, while 9 per cent were obese (defined as having a BMI above 30) and 38 per cent were overweight (with a BMI of between 25 and 29.9).

The participants then took tests on memory and other cognitive skills three times over ten years. Those who were overweight or obese and had at least two metabolic abnormalities showed the fastest decline.

Over the course of the study, those who were both obese and 'metabolically abnormal' experienced a 22.5 per cent faster decline on their scores than those who were a normal weight with no abnormalities.

Researchers say the early changes seen with higher blood pressure may set the stage for problems with thinking, memory, and dementia down the road. "This

is an important finding," says Paul Rosenberg, associate professor of psychiatry and behavioral sciences at Johns Hopkins University in Baltimore.

The study used magnetic resonance imaging (MRI) to take a snapshot of the brains of 579 healthy adults who were participating in the third generation of the long-running Framingham Heart Study. People in the study ranged in age from 19 to 63, but on average they were around 39. Doctors measured each person's blood pressure twice and took the average of the numbers.

Those who had elevated blood pressures showed more signs of early changes on detailed brain scans than those with normal blood pressure. Normal is a systolic pressure under 120 and a diastolic pressure under 80. People who had pre-hypertension, meaning that their systolic pressure was between 120 and 139 or their diastolic blood pressure was between 80 and 89, had brains that looked about 3.3 years older than normal. Those with high blood pressure, meaning they had a systolic number over 140 or a diastolic number over 90, had brains that looked about 7.2 years older. About 50 million Americans have elevated blood pressure. It's estimated that less than 40% of people who know they have hypertension are treated for it. Only about a third of those people ever get it under control.

This study doesn't prove that high blood pressure alone caused the brain changes. Other studies have shown that diets high in saturated fat and sugar, the same eating patterns that are thought to contribute to obesity and high blood pressure, play a role in changes in the brain that are thought to lead to Alzheimer's disease.

At the end, Researchers said that you must control high blood pressure from the moment it emerges. Individuals can protectively lower their risk for cardiovascular disease and stroke by getting active, maintaining healthy blood pressure, cholesterol level, weight and diet as well as avoiding smoking.

General communities and health departments can help by providing healthy living spaces, including tobacco free and safe walking areas and ensuring access to healthy foods.

Frequency of Cardiomyopathy in Beta Thalassemic Children

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ABSTRACT

Objective: To determine the frequency of cardiomyopathy in beta thalassemic children.

Study Design: Cross-sectional descriptive study

Place and Duration of Study: This study was carried out in the Pediatric department of Postgraduate Medical institute Lady Reading Hospital Peshawar from 1.1.2013 to 31.12.2013.

Materials and Methods: Total 334 Cases were collected by Consecutive (non probability) sampling technique using WHO sample size calculation soft ware. Patients collected according to fulfilling the inclusion/exclusion criteria. Beta thalassemic children with 10 or more blood transfusions, aged 2 to 15 years and both male and female children.

Results: In this study, 334 patients suffering from beta thalassemia were included. Male to female ratio was 1.62:1 and age ranged from 2 to 15 years. Average age was 7.57 years + 3.79SD. Dilated cardiomyopathy in beta thalassemic was observed in 13(3.9%), while restrictive cardiomyopathy was in 9(2.7%) patients.

Conclusion: The majority of patients with beta-thalassaemia demonstrated a unique hemodynamic pattern indicating cardiomyopathy.

Key Words: Frequency, Cardiomyopathy, Beta Thalassemia

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INTRODUCTION

Beta thalassemia is an inherited hemoglobin disease characterized by chronic hemolysis, which is due to impaired synthesis of β globin chains.¹ It is the commonest monogenic disorders in the world.¹ In Pakistan, beta thalassemia is seen in almost all parts of the country.² The estimated carrier rate is around 5-8% meaning that there are approximately 8-10 million traits (carrier) in the total population. In Pakistan, about 5000 thalassemic children are born every year.³

Over the past three decades, the management of homozygous state by multiple transfusion therapy has greatly prolonged life expectancy and prognosis of patients with beta thalassemia.⁴ On the other hand, the complications rate has been increased, mainly due to iron overload, both because of frequent blood transfusion and increased iron intestinal absorption.⁴ Cardiac complications of iron overload represent the most common cause of death in beta-thalassemic patients.^{5,6} In some studies 70-80% of deaths in beta thalassemic patients are due to heart failure.⁷ The prevalence of cardiomyopathy in thalassemic patients is 4.4%.⁸ More than half of deaths are due to left side heart failure and is the main determinant of survival.⁹ In different 10 years follow up studies, 95% of all deaths

in thalassemia occurred due to cardiomyopathy.¹⁰

A thalassemic child is a serious challenge to the public health services and resources of our country due to their continuous requirement of blood transfusions and high cost of iron chelating agents. Despite large number of deaths in thalassemia patients due to cardiomyopathy, no study is available regarding frequency of cardiomyopathy in thalassemic children in our country. The rationale of the current study is therefore, to determine the frequency of cardiomyopathy in beta thalassemic children. Based on the results of the study, regular screening of beta thalassemic children for cardiomyopathy by echocardiography and early treatment might prolong life expectancy; improve quality of life and prognosis of beta thalassemic children.

MATERIALS AND METHODS

This descriptive cross sectional study was carried out in the department of Pediatric PGMI/Lady Reading Hospital Peshawar from 11/1/2012 to 11/02/2013. Total 334 Cases were collected by Consecutive (non probability) sampling technique.

Inclusion criteria were beta thalassemic children with 10 or more blood transfusions, age 2 to 15 years and both male and female children while exclusion criteria were already diagnosed cases of cardiomyopathy in beta thalassemic children, beta thalassemic children with bone marrow transplant because not required blood transfusion and not exposed to iron overload

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cardiomyopathy. Beta thalassemic children with other causes of cardiomyopathy like underlying congenital heart disease or rheumatic heart disease on echocardiography.

The ethical committee approved the study. All beta thalassemic children admitted in Pediatrics Department of Lady Reading Hospital Peshawar through casualty, out patients department, fulfilling the inclusion criteria were enrolled in the study. An informed written consent was taken from their parents or relatives. Diagnostic criteria were based on hemoglobin electrophoresis showing fetal hemoglobin more than 90%.

Detailed medical history including age, gender, address, number of blood transfusion was taken. All these children were screen for cardiomyopathy on same echocardiography machine using M-Mode & 2-Dimension by the same expert cardiologist of Lady Reading Hospital Peshawar.

All information were recorded into a self structured Proforma

All the study variables of these patients were analyzed for descriptive statistics like mean $\pm$ standard deviation for numerical variables like age, weight, number of blood transfusions and values of echocardiography finding while frequency/ percentage were calculated for categorical variable like sex. All the data were analyzed on computer using SPSS version 17.0 and were presented in the form of graphs and tables.

RESULTS

Total 334 beta thalassemic children were included in the study. There were 201 (60.18%) male patients and 133(39.82%) were females. Male to female ratio was 1.62:1(Figure 1).

The average age of the patients was 7.57 year $\pm$ 3.79SD which ranged 2-15 years. Age wise patients were divided in four groups, the most common age group for beta thalassemia was less than or equal to 5 years, 123(36.8%) patients. One hundred and two (30.5%) patients were in the age range of 6-9 years, 73 (21.9%) were of age range 10-13 years, 36(10.8%) presented at age more than 13 years of age. (Table 1).

Average blood transfusion was 121 $\pm$ 20.3SD ml/year. Dilated cardiomyopathy was observed in 13(3.9%) patients, restrictive cardiomyopathy was in 9(2.7%) patients while 312(93.41%) patients show no cardiomyopathy. (Table 2)

Age wise distribution of cardiomyopathy shows that cardiomyopathy in above 14 years of age was little bit high as that of younger age. The patients having age less than or equal to 5 years of age have dilated cardiomyopathy 1.6%, restrictive cardiomyopathy was 4.1%, age group 6-9 years had dilated cardiomyopathy 3.9%, restrictive cardiomyopathy was 2%, in 10-13 years age group dilated cardiomyopathy was noted in 6.8% of cases, and patients having more than 13 years

of age have dilated cardiomyopathy 5.6%, restrictive cardiomyopathy was 5.6%.(Table 3)

Tabl:No:1: Age Distribution

Age	Frequency	Percent	Cumulative percent
<= 5.00	123	36.8	36.8
6.00 - 9.00	102	30.5	67.4
10.00 - 13.00	73	21.9	89.2
14.00+	36	10.8	100.0
Total	334	100.0	

Table No. 2: Cardiomyopathy in Patients with Beta Thalassemic

	Frequency	Percent
No	312	93.4
Dilated	13	3.9
Restrictive	9	2.7
Total	334	100.0

Table No. 3: Age Wise Distribution of Cardiomyopathy

		Cardiomyopathy			Total
		No	Dilated	Restrictive	
age	<= 5.00	116	2	5	123
		94.3%	1.6%	4.1%	100.0%
6.00 - 9.00		96	4	2	102
		94.1%	3.9%	2.0%	100.0%
10.00 - 13.00		68	5	0	73
		93.2%	6.8%	.0%	100.0%
14.00+		32	2	2	36
		88.9%	5.6%	5.6%	100.0%
Total		312	13	9	334
		93.4%	3.9%	2.7%	100.0%

Table No. 4. Gender Wise Distribution of Cardiomyopathy

		Gender		Total
		Male	Female	
Cardiomyopathy	No	191	121	312
		95.0%	91.0%	93.4%
	Dilated	5	8	13
		2.5%	6.0%	3.9%
	Restrictive	5	4	9
		2.5%	3.0%	2.7%
Total		201	133	334
		100.0%	100.0%	100.0%

Gender wise cardiomyopathy in beta thalassemic shows that sex have minor role. In males dilated cardiomyopathy was 2.5%, restrictive 2.5% and 95% had no cardiomyopathy. On other hand 6% of female patients shows dilated cardiomyopathy 3%, restrictive while 91% were normal. (Table 4).

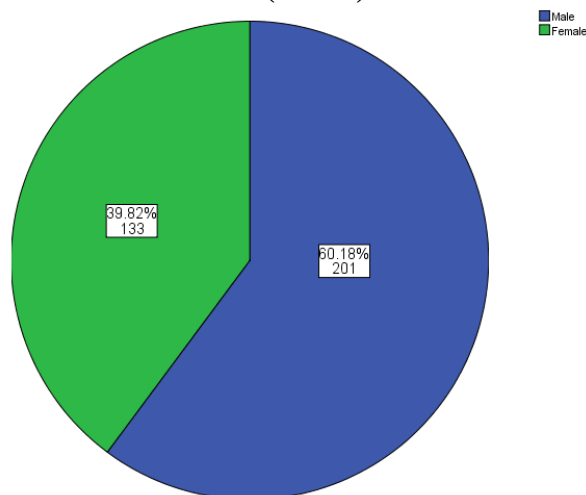


Figure No. 1: Sex Wise Distribution of The Patients

DISCUSSION

The controlled regimen of blood transfusion and iron chelation treatment has greatly improved the life expectancy of beta-thalassemia major patients, as it delay the hemosiderosis effects in the heart. Still cardiac complications are the most common cause of death among these patients (63%) and the early mortality remains high, even in patients treated with desferrioxamine (DFO)¹¹.

Predominant right heart failure is caused by pulmonary hypertension, which was presumed to occur because of lung haemochromatosis in patients with high serum ferritin level¹². Haemodynamic compensation has been reported in few patients with thalassaemia intermedia¹³. We recently found that patients with thalassaemia major and normal left ventricular systolic function, showing an abnormal right ventricular relaxation pattern but normal left ventricular filling and the prognostic superiority of short tricuspid E deceleration time on the other clinical and echocardiographic parameters in these patients¹⁴.

Most of the patients with thalassaemia major and heart failure represent abnormal haemodynamics, which is similar to right ventricular infarction¹⁵ or that of sub acute tricuspid insufficiency¹⁶. These conditions are acute or sub acute, and there is right ventricular pattern in thalassaemia major patients which is not reported before. Patients with constrictive pericarditis and restrictive cardiomyopathy show a characteristic haemodynamic pattern similar to the profile of our patients, having non-dilated ventricles, usually with normal ventricular systolic function and raised pulmonary artery pressures¹⁶. Currently, cardiomyo-

pathy is the leading cause of morbidity and mortality in 63.6% to 71% of patients¹⁷.

Studies on the cardiac implication of b-thalassemia patients who took chelation at the start of their disease are few and recent¹⁸. In these studies, it is found that life expectancy increases if chelation therapy started at proper time.

Despite of the advances in the treatment of thalassemia major and improvement in patients' survival, heart disease always remain the major cause of morbidity and mortality¹⁹.

In 1964, Engle et al,¹⁹ studied a group of 41 patients and found that 63% of patients were in congestive heart failure and most of them died in a year from the onset of disease. In 1989, Zurlo et al²⁰ found that 64% of deaths were due to cardiac disease in a cohort of 1087 patients. Finally, in the Greek series of Ladis et al²¹ it was reported that 71% of all deaths were due to cardiomyopathy.

Myocarditis is an important factor in the pathogenesis of cardiomyopathy. Thus, in a large cohort of 1048 patients with thalassemia major, 4.5% of patients developed signs/symptoms of acute myocarditis at a mean age of 15.3 years, and biopsy confirmed the diagnosis in more than half of the patients.²² These patients were followed-up for 5 years, 23.4% of patients had acute cardiac failure and most of them died within a year, whereas chronic cardiac failure developed in 27.6% of patients within a mean of 3 years, the rest of patients had a complete recovery.

In our study the mean value of body surface area was less in patients as compare to control without significant statistical difference. We also found cardiac enlargement in only 8% patients, and an abnormal ECG in 12%. The above results show that patients receiving chelation therapy have significant decrease in abnormal findings. In one study dilated cardiomyopathy was found in 4 out of the 76 patients aged 4 to 38 years and an increased LVDd in 8 out of the 76 patients. It was noted that some patients did not start iron chelation therapy in time.²⁴

Valdez-Cruz, et al¹⁸ followed 13 patients, aged 2 to 15 years, who were on chelation therapy at the start of their disease and they found that the left ventricular diastolic dysfunction(LVDd) and left ventricular systolic dysfunction(LVSd)increased but still its not significant statistically, as well as there was a decrease of the Fraction shortening which is statistically significant . (p<0.05).

Favilli et al¹⁴ compared twenty five b-thalassemia major patients (mean age of 15.8 ± 5.7 years, who were on regular blood transfusions and chelation therapy) to 25 healthy control subjects. In this study the mean value of LVDd and left ventricular MI was significantly higher as compared to controls (p<0.001 and p<0.05 respectively). The LVDd was significantly increased even in patients with normal systolic function.¹⁴. The higher mean value of LVDd in this study might be due to the greater age range of these patients.

CONCLUSION

In our study we found that most of the children having b-thalassemia and are on regular blood transfusions and chelation therapy have normal systolic and diastolic function of the left ventricle and normal ECG up to the age of fifteen years. It is established on the basis of this study that regular blood transfusions and chelation therapy can delay the development of cardiomyopathy and cardiac complications.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Medically Unexplained Symptoms and Emotional Disorders Among School Children

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ABSTRACT

Objective: To determine the frequency of unexplained physical symptoms in 5-15 years old children and its association with emotional disorder in psychiatric clinic of a public sector hospital.

Study Design: Cross-sectional descriptive study

Place and Duration of Study: This study was conducted in the Department of Paediatric OPD, DIMC, DUHS, Karachi from January 2015 to June 2015.

Materials and Methods: 144 samples of 5-15 years old children of both genders with somatic /physical symptoms fulfilling the inclusion criteria which were referred to the Psychiatry clinic. Semi structured questionnaire based on Urdu version of SDQ parent version were filled by the parents to assess the emotional problems in these children.

Results: Analyses were completed for sample of 135 patients. 9 were excluded due to incomplete questionnaire. The mean age of children was 10.95 years. Pain predominated as physical symptoms. In 5-10 years age group was pain, it included abdominal pain, headaches, limb pain, backache, chest pain. Fatigue, difficulty in breathing tremors, jerky movement and nausea and vomiting were more common in females. Anxiety disorder n=51 (50%), depression n=28 (28%), and somatoform disorder n=22 (22%) were the psychiatric comorbidities observed in these children.

Conclusion: Children presenting with unexplained medical symptoms are often not managed appropriately by the Pediatricians due to lack of awareness. Majority of children presenting with MUS suffer from emotional disorders.

Key Words: Medically Unexplained Symptoms, Emotional Disorders, School Children

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INTRODUCTION

Children suffering from emotional problems are unable to understand their feelings and medically unexplained symptoms and thus cannot inform their parents¹. Most of these children and their parents seek help from pediatricians². Medically unexplained physical symptoms (MUPS) vary in severity and number as documented in many studies conducted among children of different age groups and in different cultures. Most of these have significant adverse impact not only on child suffering from these symptoms including their academics and social life but also leads to considerable distress to their families³. As children suffering from MUPS do not have a medical diagnosis they often remain neglected. These children lack social legitimacy as 'sick' with physical illness. They are at times blamed for their own distress this leads to sense of worthlessness and shame in them. Further due to the immature cognitive development children are unable to understand and communicate their emotional distress and thus present as somatic symptoms⁴. In a study

conducted in India showed that the children suffering from MUS are more likely to suffer from Psychiatric morbidity including emotional disorders⁵. A study conducted by Costello, pain was the most frequent physical complaints associated with emotional problems in children of genders and this included stomachaches, backaches and musculoskeletal For both genders⁶. An association between musculoskeletal pains and depression was found in both girls and boys⁷. Pediatricians have children with MUS attending their clinics not infrequently and no organic cause explains the condition. It has been shown that these children suffering from MUS have increased consultations and health services utilization 50% and increase hospitalizations⁸. This causes an extra burden on the physicians, family and health services⁹.

To my knowledge in there is limited literature available in our country regarding on the pattern of presentations of medically unexplained symptoms and their association with emotional disorders among these children. This study will contribute in sensitizing those taking care of the children. Early identification of these conditions by pediatricians will help to manage so that long term negative consequences are prevented.

Operational Definitions:

1. MUS - physical symptoms for which no clear or consistent organic pathology can be demonstrated.

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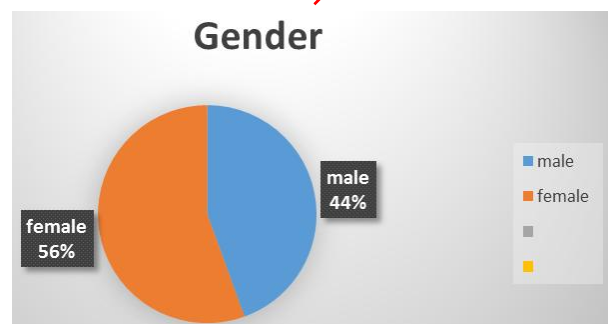
2. Child: A human being aged 5 to 15 years.
3. Psychiatric conditions include emotional disorders based on DSM 5 criteria: depressive disorder, anxiety disorders and somatoform disorder.

MATERIALS AND METHODS

It is a cross-sectional descriptive hospital based study. Ethical consideration were considered and approved by IRB DUHS. Written consent was obtained from parents of participating children. Those refused to participate were excluded. The children visiting the pediatrics in OPD of tertiary care public hospital of Karachi for physical complaints were evaluated through purposive convenient sampling of children and excluded for any organic cause. Children suffering from any physical disease to explain the physical symptoms, past history of already diagnosed from any psychiatric illness, mental retardation or any neurological disorders were excluded by the Paediatrician. 144 samples of 5-15 years old children of both genders with somatic /physical symptoms fulfilling the inclusion criteria which were referred to the Psychiatry clinic. The parents accompanying these children were briefed about the study. Semi structured proforma 2 including socio-demographic data (age, gender, education, socio economic statuses were filled by the parents with assistance of researcher. Strength and difficulty questionnaire (SDQ) parent version translated in Urdu was used to assess the emotional problems in these children. SDQ includes 25 items for completion by the parents. Those scoring 1SDQ score of 17 or above were further assessed clinically for emotional disorders in children based on DSM 5 criteria. 2 Statistical Package of social sciences (SPSS 17 version) was used to analyse data. Descriptive analysis of frequency, ratios were done to report the results.

RESULTS

Of the 144 patients were samples who met the inclusion criteria, 9 were excluded because of incomplete data. Analyses were completed for sample of 135 patients.



Graph 1: Gender distribution

Headache, abdominal pain and limb pain were most frequent. Multiple chronic pains in 22.9%

In 10- 15 years and both gender chronic fatigue proved to be the most frequent psychosomatic symptoms, followed by tension headache and lower back-pain.

Poly symptomatic medical symptoms were more than patients with single symptom as shown in bar chart 2. Those suffering from multiple complaints reported that these complaints suffered from sleep problems (60%), inability to pursue hobbies (55%), eating problems (52.4%), school absence (48.8%), and inability to socialize (44.7%).

Table No.1: Age distribution of children= Total=135

5-9 years	70	51.8%
10-15 years	65	48.2

Table No.2: Pattern of MUS symptoms in children male to female percentage

Presenting symptoms	5-9 years %	10-15 years%
abdominal pain	M 9.5% : F12.3%	9.6%,:14.8%
Headaches	M9.5%: F16.2%	18.3%, : 22.8 %
chest pain	3.2%:4.6%	4.2% 4.6%
limb pain	M 2.3%:F2.9%	16.0% : 18.5%
Backache	13% :13.4%	40.5% :51.6%
Fatigue	4.5%: 5.2%	71% : 72%
Difficulty in breathing	1.4% : 2%	8.% : 10.2%
Tremors, jerky movements	2.1%: 4.2%	11.8% :27%
Nausea and vomiting	3.1% :3.4%	3.7% : 11.6%

Physical symptoms seen in 5-10 years age group included pains including, abdominal pain, headaches, limb pain, backache, chest pain, fatigue, difficulty in breathing. Tremor and jerky movement and nausea and vomiting were more common in females. While in 5-9 years limb pain and abdominal pain were more common Pain was the most common presentation among all ages with Headache (62.8%), abdominal pain (48.8%), and limb pain (51%), backache (51.6%). In both gender chronic fatigues proved to be the most frequent psychosomatic symptoms, followed by tension headache and lower back-pain. SDQ less than 17 = 28 (21%) More than 17 score was in n= 108 (79%). Further clinical assessment for emotional disorder based on DSM 5 criteria. Total n=101 (74%) suffered from emotional disorder. Anxiety disorder n=51 (50%), depression n=28 (28%), and somatoform disorder n=22 (22%). Anxiety disorder was the most common emotional disorder in children suffering from multiple somatic complaints as compared to mono-symptomatic.

DISCUSSION

MUPS are commonly found in children and increase with age. It is reported 10% to 15% of visits in medical services¹⁰. Our findings correspond to the results from another studies in which more females are reported to experience MUS three times more but in our study gender difference is not marked¹¹. There was variability in presentation of somatic symptoms in children¹². Pain was the most common presentation among all ages¹³, headache (60.5%), abdominal pain (43.3%), and limb pain (33.6%), backache (26%)¹⁴. This is similar to findings in studies conducted¹⁵ in Dutch children and also in Pakistan¹⁶. Up to 70% of people suffering with MUPS will also suffer from depression and/or anxiety disorders. This is of significance because these disorders are detectable and treatable, irrespective of the explanation for the physical symptoms. The study showed a relationship between medically unexplained somatic complaints and emotional disorders with most notable anxiety disorders¹⁸. Finding in our study is consistent to the other studies that in genders, stomach aches and headaches together and musculoskeletal pains are associated with anxiety disorders⁶. Musculoskeletal pains were also found to be associated with depression⁷. As in this study indicates children were more likely to have multiple somatic complaints as compared to one complaint. Further those with poly-symptomatic complaints are more likely to suffer from emotional disorders as compared to mono-symptomatic. This corresponds to the findings in a large epidemiological study the Great Smoky mountain project in which children with anxiety disorder are 100 times more likely to experience somatic complaints¹⁷. Many studies have identified MUS and its association with emotional disorders children¹⁸. Significant association has been found in the study as also documented in a study conducted in Italian student community¹⁹. In children with pain and chest pain youngsters had higher levels of some anxiety symptoms same as this study²⁰. The study conducted in Italy suggests that unexplained somatic symptom can be often considered as expression of a neglected anxiety and/or depressive disorder in a considerable proportion of children which is similar to finding in our study^{21,22}. Somatoform disorder is also not uncommon which similar finding of this study²³.

CONCLUSION

Emotional disorders in C&A may present as unexplained physical symptoms. There is need of awareness, early identification of these conditions by pediatricians to manage and refer for further assessment of emotional disorders.

Strengths: This study findings shows that children present with somatic symptoms in Pediatric clinics and

referred for further psychiatric evaluation suffered from emotional problems

Limitations: the measures of MUS and emotional problems were based on a single informant, i.e. parental report. The factors leading to this problem were not assessed. It's a hospital based cross sectional study so results cannot be generalized to the population in general. Sample size is limited Future studies are recommended to investigate with larger samples to identify the whole spectrum of MUPS in different age group of children and establish its association with psychiatric disorders. It may provide more precise measures of the impact of MUPS on these children along with its implications for the management and prevention.

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Conflict of Interest: The study has no conflict of interest to declare by any author.

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Effects of Medical Study on Sports Activities of Medical Students in Azad Kashmir

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ABSTRACT

Objective: To determine the effects of medical study on sports activities of medical students.

Study Duration: cross sectional study

Place and Duration of Study: This study was conducted at PMC in Rawlakot AJ&K from March 2013 to March 2015.

Materials and Methods: This study obtained data (88 persons) in a purposive sample from the entire second year class using a structured self-administered questionnaire, with 88% response rate.

Results: Out of total 88 respondents, 63 girls (72%) and 25 boys (28%) with a mean age of 19 participated. More than 80% respondents had many friends, 81% girls and 36% boys didn't have time to meet them ($p<.000$). Around 89% girls and 68% boys didn't have time to play ($p=.029$), 40% hostelite and non-hostelite could play ($p<.991$), and 76% boys and 65% girls perceived burdensome medical study which deprived them from regularly meeting their friends and participating in these activities.

Conclusion: Findings of this study have broader implications for furnishing academic environment in medical institutions of Pakistan more conducive, supportive and effective. Medical institutions should review their curriculum and teaching/learning schedules and try to redesign their educational programs keeping a balance between study load and sports activities of a medical student. Students should also be encouraged to set their priorities and try to ensure this balance.

Key Words: Medical Study, Sports Activities, Medical Students

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INTRODUCTION

Medical studies are generally highly demanding, depriving a student from enjoying sports. Such activities need friends, time to meet them and play. Academic environment in medical college is stressful which promotes competition. Availability of social and emotional support by friends during tough situations and decreased workload¹ (Sankar P et al., 2012) have been realized as important components of the social environment of an institution.² (Welsh A, 2010). Sports are essential ingredient of a medical student's life. Social support, in terms of sustained connection with friends enhances self-esteem of a student. It entails that friends would provide quality assistance during the difficult times³ (Khodarahimi S, 2012). Though anecdotal with lack of scientific evidence, it is generally perceived that highly demanding medical studies socially isolate the students⁴ (Blakey H et al., 2008). The effect of stress on medical students' development into competent professionals is of great concern (Sidhu J K, 2007)⁵. There is a need to further explore the relationship between the availability of

social support system and the highly demanding medical education in order to identify factors which can help strengthen this relationship in a positive direction. This is very important to reduce undue stresses among the medical students by providing opportunities for interactions with friends and peers which in turn can enhance their learning motivation, competency and the future performance.

There is a dearth of literature on this topic, particularly in this part of the world, and for areas similar to AJ&K. Keeping the need and importance of social support system, we conducted this study for assessing how second year medical students at Poonch Medical College (PMC) perceived the effects of studying in a medical college on their sports activities. The purpose of this study was to draw lessons for suggesting appropriate strategies to concerned authorities in Azad Jammu & Kashmir (AJ&K) so that a balance could be ensured between academic lives and participation in sports activities of undergraduate medical students.

MATERIALS AND METHODS

This study was conducted from March 2013 to March 2015 with the first batch of students at PMC in Rawlakot AJ&K.

Ethical consideration: The study was conducted after approval by ethical committee.

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Study Population and Design: A cross-sectional descriptive study was conducted with the second year undergraduate medical students at PMC.

Sampling and sample size: Using Purposeful Sampling, we invited the entire second year class of 100 students (70 girls, 30 boys) to participate in the study.

Data Management: A self-administered structured questionnaire was used to obtain the data. Overall response rate was 88%. Each questionnaire took around 40 minutes for completion. The key study variables were age, sex, status of studentship (Hostelite, non-hostelite), number of friends, frequency of visits, time spent with friends before and after the admission in the medical college, time spent on sports and factors (if any) which prevent them from spending desirable time with friends.

Data Analysis: Collected data was reviewed and cleaned manually, and entered into SPSS 19. Simple frequencies and proportions were generated. Cross tabulations for key study variables were drawn statistically significant relationship. We also applied Pearson's Chi-square test on cross-tabulation to determine the p-value.

undergraduate medical students of which 63 (72%) were female and 25 (28%) were male. Mean age of study population was 19.4. Twelve boys (48%) and 30 (48%) girls lived in hostels (Table.1).

Table No. 1: Demographic characteristics of study participants by gender

Characteristics	Variables	Male		Female	
		Number	%age	Number	%age
Age	<18	3	12	4	6
	19	11	44	34	54
	20	8	32	22	35
	21 or >	3	12	3	5
Status of studentship	Living with parents	8	32	31	49
	Living with relatives	2	12	1	2
	Living with friends	2	8	1	2
	Hostelite	12	48	30	48

RESULTS

General and Demographic Information: We collected data from 88 (88% of total enrolled)

Table No.2: Social behaviors and characteristics of study participants by gender

*Characteristics	Variables	Male		Female		P-value
		Number	Percentage	Number	Percentage	
Number of friends	Many	21	84	51	81	.417
	Few/None	4	16	12	19	
Frequency of visit to a friend in a week	12 hours or less	14	56	12	19	.000*
	More than 12 hours	2	8	0	0	
	Don't visit at all	9	36	51	81	
Perceived effect on frequency of visits to friends due to admission in the medical college	Visited friends more before admission in the medical college	15	60	36	57	.807
Average time spent on sports activities in a week after admission in the medical college	12 hours or less	6	24	6	10	.029*
	More than 12 hours	2	8	1	2	
	Don't have time to play at all	17	68	56	89	
Perceived factors which affected time spending with family or friends	Hectic study schedule	19	76	41	65	.685
	Living in hostel hence away from friends	4	16	15	24	
	I don't want to play	2	8	7	11	

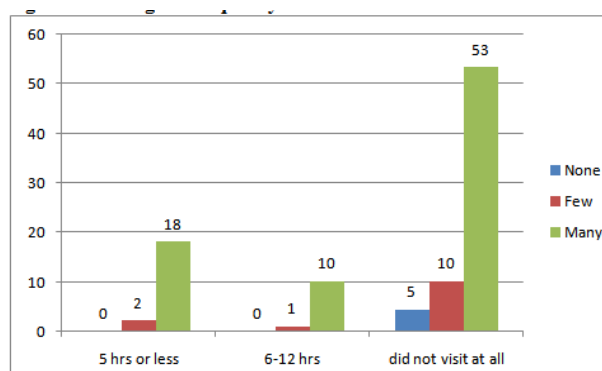
* 0.05 significance level

Perceived Effects of Medical Studies on Sports Activities: Cross-tabulations of various variables by gender pertaining to sports activities were done. There was no statistically significant difference ($p < .417$) among boys and girls regarding the number of friends. However, the difference in gender-based response regarding the frequency of visit to friends was strongly statistically significant ($p < .000$). Similarly the gender difference for the amount of time spent on sports

activity was also highly statistical significant ($p < .029$) (Table 2). However, 40% boys and 33% girls confessed that they didn't like social gathering. Further analysis of data revealed that 53% students who reported to have many friends, did not find any time to visit them, though difference between those who had many friends and those who had few/none was not statistically significant ($p < .884$) (Fig. 1). The difference between hostelite and non-hostelite

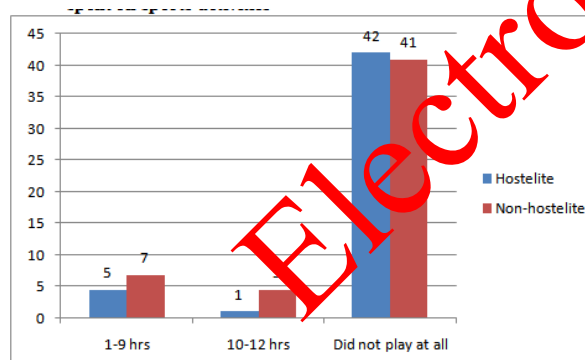
respondents regarding the amount of time spent on sports activity was also not statistically significant. More than 40% hostelite and non-hostelite participants informed that they didn't have time to spend on any sports activity ($p < .991$) (Fig. 2)

Perceived factors which affected students' sports activities: Around 60% study participants were not satisfied with their level of interaction with friends after the admission in medical college. Among various factors which reportedly affected their visits to friends, 76% boys and 65% girls mentioned hectic study schedule as the main factor, a very important finding but not statistically significant ($p < .685$). Around 24% girls and 16% boys attributed decreased frequency of visits to friends to their hostelite status (Table 2).



N=88 (boys=25, girls=63), $P=.884$

Figure No.1: Percentage of frequency of visits to friends relation to the number of friends



N=88 (boys=25, girls=63), $P=.991$

Figure No.2: Percentage of hostelite and non-hostelite students in relation to the time they spent on sports activities

DISCUSSION

Undergraduate medical education is a lengthy and stressful process. The aim of this hardship is production of knowledgeable, skillful and professional health care providers. Complicated medical educational process requires sustained personality among the students, which is generally determined by the academic environment and sports activities. Our study aimed to

explore perceived effects of studying in medical college on sports activities among the second year medical students of Poonch Medical College Rawlakot.

Our study primarily focused on determining the level of sports exclusion among our study population. We used amount of interaction with friends and the time spent on sports activities as the main variables. Most of our study participants who had many friends couldn't visit them which they attributed it to studying in medical college. The perception and attitude of new medical students towards medical education in relation to their sports activities is alarming and should be looked into the broader context of wellbeing. Six separate studies in Sri Lanka, UK, Iran, India, Malaysia and Bangladesh using the same instrument assessed students' perceptions of the educational environment⁶⁻¹¹ (Palmgren P J., Chandratilake M, 2011, Lee J, Graham AV, 2001, Aghamolaei T, Fazel I, 2010, Unnikrishnan B, 2012, Lai NM, 2009, Nahar N, 2010). The instrument used "availability of friends" as one of the determinants of good educational environment. Another cross-sectional study regarding students' perception of medical school stress (Lee J, Graham AV, 2001) considered "talking and interacting with friends" as an important coping mechanism for decreasing stress. Mane Atsavy B et al. (2011) in a cross-sectional study on perceived factors of stress among medical students found "talking to friends" as perceived coping mechanisms by the responding students¹². In another study regarding factors associated with stress among nursing students (Sharma S, Kaur A, 2011), 49% respondents mentioned "lack of close and intimate friend" as an important stress factor¹³. A study in UK compared effect of graduate studies on level of social exclusion among medical and economic students⁴ (Blakey H et al., 2008). Medical students were found having significantly decreased interaction with their close friends than economics students, and felt separated from the rest of university life. Besides sustained interaction with friends, the value of positive interaction in relation to learning from peers, clinicians and patients can also increase students' sense of accomplishment and their quality of life¹⁴ (Marcus H et al., 2010)

A significant finding of our study was the lack of participation of majority of study students in sports activities which they also attributed to studying in the medical college. Literature on relationship between participating in sports activities and academic performance of medical students was not found. A cross-sectional study involving eight thousand schoolchildren found that academic ratings were significantly correlated with the level of physical activity¹⁵ (Dwyer T et al, 2001). In a review of 43 articles, positive associations were found between physical activity and academic achievement, academic

behavior, and cognitive skills and attitudes¹⁶ (Centers for Disease Control and Prevention, 2010)

Among various perceived factors which prevented our study students from meeting their friends and participating in sports activity, the most striking was the hectic study schedule (referred as 'heavy workload' in this study). The heavy workload and examinations have been reported in several studies as the most significant causes of stress among medical students. The strongest predictor of well-being was academic stress mainly comprising of large workload, and the academically stressful and competitive environment of medical school. These results show that students who appraise their workload as stressful also report lower levels of well-being¹⁷. (Rogers M E (2012)

A study in Saudi Arabia (Abdulrahman K B A, 2007) found that around 90% responding students of a medical school mentioned heavy workload (high number of lectures) as the major factor of reduced academic achievement¹⁸. Heavy workload, besides affecting academic performance has been reported to lead to very serious consequences even suicidal tendencies. A renowned medical institution in Pakistan has experienced a series of suicides by undergraduate medical students in last two decades. Four medical students committed suicides since 1991. Heavy study load have been reported as underlying reasons¹⁹ (The Express Tribune, 2010).

There are limitations to this study, which are inherent in the methods used. Besides high influence of subjectivity of collected data due to perceived responses, there is an issue of generalizability as our study participants were selected from one medical college. In order to increase external validity (Generalizability), inclusion of other medical colleges is needed.

CONCLUSION

A large proportion of study participants correlated studying in medical institution with the reduction in their sports activities. The findings may not add to existing knowledge but provide an important aspect of attitude of newly enrolled medical students, which may affect their future professionalism. Findings of this study have broader implications for Pakistan where mushrooming of new medical institutions across the country is notable. Our findings suggest that medical institutions, particularly the newly established ones in Pakistan should review their situation with their faculty and students to assess the design and content of curriculum, teaching/learning strategies, and the overall schedule in order to render these adequately flexible and more facilitating of an effective and motivating teaching/learning environment. Medical institutions should be aware of the issues explored in our study while planning their curricula and educational programs. Prospective medical students should also be

informed what social consequences they can face while studying in the medical college/university. On the other hand, medical colleges/universities should encourage their students to try to achieve a balance between study work and their sports activities and find feasible options for healthy coping strategies.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Assessment of Antiphospholipid Antibodies in Women with Recurrent Miscarriage at GMMMC, Sukkur

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ABSTRACT

Objective: To determine and analysis of Antiphospholipid Antibodies in women with Recurrent Miscarriage belongs to District Sukkur.

Study Design:: Cross-sectionals study

Place and Duration of Study: This study was conducted in the Ghulam Muhammad Mahar Medical College, Sukkur and women attending local health clinics enrolled in this study after taking their informed consent from May, 2012 to August 2013.

Materials and Methods: In this study 205 patients were taken. Patient's whole blood was collected by disposable syringes through vein puncture technique from cubital vein and maximum of 10 ml blood was taken. An aliquot of this blood (4 ml) was transferred in the EDTA containing tube. Immediately after collection plasma was separated and stored at - 40 °C for the measurement of plasma Anti phospholipid and anticardiolipin antibodies level. 5 ml blood was drawn in plain tube and allowed to clot, and then serum was separated and used for blood cholesterol, HDL, LDL and Plasma lipid concentration.

Results: In the current research of district Sukkur showed the highest frequency in age group of 26 to 35 years (Table 140). In physical parameters, BMI, calories intake and maternal history of RM of patients and control subjects showed significant ($p < 0.05$) difference. In present study the assessment of antiphospholipids antibodies (aPL) 1.95 % which were significantly different ($p < 0.05$) than controls. Results of anticardiolipin antibodies (aCL) showed 2.43 % prevalence in patients with recurrent miscarriage.

Conclusion: The present study indicated that antiphospholipid antibodies and anticardiolipin antibodies were found an indipanded risk for recurrent miscarriage in population of Sukkur.

Key Words: Recurrent Miscarriage, Antiphospholipid Antibodies, Anticardiolipin antibodies.

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INTRODUCTION

Recurrent miscarriage is the spontaneous loss of three or more consecutive pregnancies in the first trimester^{1,2}. It affects 1 to 2 percent of women, in one half of whom there is no identifiable cause. Most of the miscarriage due to chromosome abnormalities, it may be upto 90%. The happening of which is more very much related to basal follicle-stimulating hormone FSH levels³. In contrast to women suffering a sporadic miscarriage, women who recurrently miscarry often lose pregnancies with a normal chromosome content⁴. It has been reported that 54% of pregnancy wounded in the middle of women with recurrent miscarriage are euploid⁵. The etiology of a large proportion of miscarriages, as well as the etiology of recurrent miscarriages, remains unexplained^{6, 7}. Previous studies of such cases have suggested many risk factors, such as: history of prior fetal losses, abortions and previous deliveries, caffeine,

alcohol, tobacco and drug use, uterine anatomic defects, endocrine disorders, deregulation of a component of the immune system. Recurrent miscarriage (RM) can have deep emotional and psychological effects on both partners^{8, 9}.

Antiphospholipid antibodies (APA) consist of a different group of antibodies that target phospholipid-binding plasma proteins¹⁰. More than twenty APA have been identified and consist of a heterogeneous group of antibodies that target aPL binding proteins¹¹. In particular, beta-2-glycoprotein and prothrombin. It has been reported that certain ACA interferes in very early pregnancy, that is, at the stage of fetal implantation by impeding normal reproductive event¹². These miscarriages pathological mechanism causing recurrent abortion, which is commonly diagnosed as infertility. Serum anticardiolipin antibodies were raised in patients with recurrent abortion when comparing with controls¹³. Recent research and clinical experimental results propose that the pathophysiology of pregnancy loss in patients with antiphospholipid syndrome may cases inflammation at the maternal-fetal interface and disruption of normal trophoblast function and survival,

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rather a pro-thrombotic event^{14, 15}. Therefore the present study will be designed to evaluate the risk factors for recurrent miscarriage and its correlation with antiphospholipid antibodies.

MATERIALS AND METHODS

Study design and site: Cross-sectionals study on the analysis the antiphospholipid antibodies in women with recurrent miscarriage of Sukkur.

Enrolment of patients: This study was conducted in the Ghulam Muhammad Mahar Medical College, Sukkur and women attending local health clinics enrolled in this study after taking their informed consent.

Duration of study: The study was conduct over a period of fifteen months from May, 2012 to August 2013.

Data collection: The patients were interviewed by using a structured questionnaire to collect the bio-data and history of patients.

Blood sample: Blood was collected by disposable syringes through vein puncture technique from cubital vein and maximum of 10 ml blood was taken. An aliquot of this blood (4 ml) was transferred in the EDTA containing tube. Immediately after collection plasma was separated and stored at - 40 °C for the measurement of plasma Anti phospholipid and anticardiolipin antibodies level. 3 ml blood was drawn in plain tube and allowed to clot, and then serum was separated and used for blood cholesterol, HDL, LDL. Plasma lipid concentration.

Body mass index (BMI): In addition to excess weight, body shape is a putative phenotypic marker of increased risk of disease. Epidemiology studies have found that central fat distribution is related to adverse psychology states,

RESULTS

Total 205 patients and controls were recruited from district Sukkur. In the current research of district Sukkur showed the highest frequency in age group of 26 to 35 years (Table 140). In physical parameters, BMI, calories intake and maternal history of RM of patients and control subjects showed significant ($p < 0.05$) difference (Table No. 1).

Table No. 1: Comparison of frequency and % of patients and controls with different age groups of Sukkur.

Age (18 – 40 Years)	Patients		Controls	
	Frequency	%	Frequency	%
18 – 20	36 ^b	17.47%	34 ^b	16.50%
21 – 25	43 ^b	20.87%	41 ^b	19.90%
26 – 30	47 ^a	22.81%	50 ^a	24.27%
30 – 35	47 ^a	22.81%	49 ^a	23.78%
36 – 40	33 ^b	16.01%	32 ^b	15.53%

In present study the assessment of antiphospholipids antibodies (aPL) 1.95 % which were significantly

different ($p < 0.05$) than controls. Results of anticardiolipin antibodies (aCL) showed 2.43 % prevalence in patients with recurrent miscarriage (Table No. 2).

The values having the same superscript within the column are not significantly ($p < 0.05$) different according to Duncan's multiple range test.

Table No. 2 Serological results of anti-phospholipid IgG (aPL IgG) and anti-cardiolipin IgG (aCL IgG) in patients and controls of district Sukkur.

Test Perform	Anti-phospholipid IgG (aPL IgG)		Anti-cardiolipin IgG (aCL IgG)	
	Positive ≥ 10 GPL AU/ml	Negative ≤ 10 GPL AU/ml	Positive Cut off = 2.0	Negative Cut off = 2.0
Patients	04 ^a (1.95%) (mean = 16.0 $\pm$ 0.5)	201 ^a (98.0%) (mean = 4.6 $\pm$ 0.1)	05 ^a (2.43%) (mean Cut off = 0.4 $\pm$ 1.0)	200 ^a (97.52%) (mean cut off = 0.5 $\pm$ 0.2)
Control	01 ^b (0.48%) (mean = 13.9 AU/ml)	204 ^a (99.51%) (mean = 5.0 $\pm$ 1.2)	00 ^b (0.0%)	205 ^a (100%) (mean cut off = 0.3 $\pm$ 0.1)

The values are expressed as mean $\pm$ Standard error.

The values having the same superscript within the column are not significantly ($p < 0.05$) different according to Duncan's multiple range test.

Table No. 3 Comparison of physical parameters in patients and control subjects of district Sukkur.

Parameters	Sukkur	
	Patients	Control
Age (Years)	30.0 ^a $\pm$ 1.63	31.5 ^a $\pm$ 1.52
Weight (Kg)	55.0 ^a $\pm$ 2.1	56.0 ^a $\pm$ 2.0
Height (Inches)	132.8 ^a $\pm$ 10.2	138.2 ^a $\pm$ 11.2
BMI	20 ^a $\pm$ 2.0	24 ^a $\pm$ 1.0
Calorie intake (kcal/day)	1202 ^b $\pm$ 16	1316 ^a $\pm$ 14
Maternal history of RM	47.0 ^a %	15.6 ^b %
Hypertension	10.0 ^a %	11.3 %
Smokers	0.00 %	00 %
Vegetarian	0.52 ^a %	0.03 ^a %

The values are expressed as mean $\pm$ Standard error.

Table No. 4: Comparison of lipid profile in patients and control subjects of district Sukkur.

Test	Patients	Control
Total Lipid (mg/dl)	583.5 ^a $\pm$ 16	612.5 ^a $\pm$ 15
Total Cholesterol (mg/dl)	158.0 ^a $\pm$ 12.5	161.0 ^a $\pm$ 11.8
Triglyceride (mg/dl)	118.4 ^a $\pm$ 10	119.0 ^a $\pm$ 14
HDL-Cholesterol (mg/dl)	33.5 ^a $\pm$ 4.0	32.8 ^a $\pm$ 2.8
LDL-Cholesterol (mg/dl)	103.5 ^a $\pm$ 10.5	109.5 ^a $\pm$ 10.0
VLDL-Cholesterol (mg/dl)	38.0 ^a $\pm$ 7.0	39.0 ^a $\pm$ 7.0

The values are expressed as mean $\pm$ Standard error.

The values having the same superscript within the row are not significantly ($p < 0.05$) different according to Duncan's multiple range test

DISCUSSION

The current study was carried out to assess the antiphospholipid antibodies and anticardiolipin antibodies in women with recurrent miscarriage. Various parameters have been assessed including physical and biochemical parameters (Antiphospholipid antibodies, Anticardiolipin antibodies and Lipid profile). The current research showed the positive antiphospholipids antibodies (aPL) 1.95 % which was significantly different ($p < 0.05$) than control group. Results of anticardiolipin antibodies (aCL) in the running study showed 2.4 % in patients with recurrent miscarriage. All the patients which were positive with aPL showed the positive results of aCL as well. There is now abundant evidence in the literature that aPL are particularly associated with a risk of thrombosis, especially recurrent events and pregnancy morbidity¹⁶. Serum anticardiolipin antibodies were raised in patients with recurrent abortion when comparing with control^{16, 17}.

In present study, anthropometric measurements were conducted by using the standard methods. Weight with minimum clothing was recorded to the nearest 0.1 kg, using digital scale^{18, 19}. Results of these nutritional parameters showed that all the patients were under weight and having significantly low BMI. In patients 47.0 % population have the maternal history of RM. In controls 15.6 % women have the maternal history which is significantly different ($p < 0.05$) in patients^{20, 21}. Lipid profile level was about normal in patients and in control groups but HDL-cholesterol level was slightly lower than control. Triacylglycerol level showed significant difference. Socio-economically, majority of Pakistani population belongs to low socio-economical group^{21, 22, 23}. In patients 38.0 % population have the maternal history of RM and 62.0 % population do not have maternal history. In controls 17.3 % women have the maternal history which is significantly high in patients²³. Particularly the people live in remote areas of Pakistan food contains high levels of triglycerides and cholesterol^{24, 25}.

CONCLUSION

The present study indicated that antiphospholipid antibodies and anticardiolipin antibodies were found a independent risk for recurrent miscarriage in population of Sukkur. In current study 1.9 % patients were positive with antiphospholipid antibodies and 2.4% patients were positive with anticardiolipin antibodies. Positive antiphospholipid antibodies and anticardiolipin antibodies may be a cause of recurrent miscarriage.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Frequency of Retinoblastoma According to Age, Gender and Laterality

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ABSTRACT

Objective: To evaluate the frequency, age, gender and laterality related distribution of retinoblastoma.

Study design: Cross sectional study.

Place and Duration of study: This study was conducted at the Department of pathology BMSI, JPMC Karachi from 1st Jan 2009 to 31st Dec 2013.

Materials and Methods: A total of 80 cases of retinoblastoma were received in the department of Pathology, BMSI, JPMC, Karachi during the period of 1st January 2009 to 31st December 2013. The cases were reviewed and morphological diagnosis done on H&E. Information regarding laterality of lesion, age and sex were recorded from archives. The data analyzed by using SPSS version 22.

Results: Frequency of retinoblastoma was 2.93%. Right sided lesions were 46.25% & 45% were Left sided, with a M: F ratio of 1:1. The mean age of retinoblastoma patients was 3.64 years. It was relatively more common in 3 to 4 years (53.75%) of age group compared to other age groups.

Conclusion: Frequency of retinoblastoma was 2.93%, with almost equal i-e 46.25% Right & 45% Left sided origins. The M: F ratio was 1:1 while more common age group was 3 to 4 years.

Key Words; Retinoblastoma. Frequency, Age, Gender, Laterality.

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INTRODUCTION

Retinoblastoma is a neuroectodermal embryonic tumor of developing retina, caused by mutation in RB1 tumor suppressor gene, presented at long arm of chromosome 13 q 14¹⁻⁶. Crucial period for mutations in retinal cells are retinal development between 4th to 8th gestational week and continuous up to six months of infancy¹. Approximately 10% of affected children with retinoblastoma have positive family history⁷. Retinoblastoma is seen as both, hereditary as well as in non hereditary form. The former has increased risk of subsequent malignancies i.e. bone & soft tissue sarcoma, melanoma and brain tumors^{3,4}. Retinoblastoma is usually recognized under 3 years of age while majority of cases are diagnosed before 5 years of age⁸.

Globally 5,000 new cases of retinoblastoma are diagnosed annually. Incidence ranges vary from 1 in 15,000 to 1 in 20,000 live births⁹⁻¹⁰. Frequencies of retinoblastoma have been reported varying as 2 to 4%^{9,11} 3%^{12,13} and 6%¹⁴ respectively amongst all childhood malignant neoplasms.

In USA approximately 300 children are affected by retinoblastoma annually¹⁵. African countries showed higher incidence accounting for 10-15% of childhood malignancies whereas Australia, North America,

Germany, UK and Asian subcontinent accounts for 1.5 to 4% of neoplasms in children^{16,17}. Idaho pediatric cancer registry¹⁸ data showed retinoblastoma being the 5th cancer type at the rate of 2.5%. Surveillance epidemiology and End Results (SEER) USA registry¹⁹ showed that retinoblastoma is the 5th cancer type, at the rate of 3.2%. Shaukat Khanum collective cancer registry²⁰ data showed that retinoblastoma accounts the 6th most common malignancy with 5.09% frequency.

Environmental factors like poverty and low maternal education are associated with increased risk whereas multivitamins supplementation have protective role for retinoblastoma development¹.

This study was designed to assess the frequency of retinoblastoma in our population and to evaluate it with laterality of the lesion, age and sex.

MATERIALS AND METHODS

The study was performed at the department of Pathology Basic Medical Sciences Institute, Jinnah Postgraduate Medical Center Karachi. A total of 80 cases of retinoblastoma were received from 1st January 2009 to 31st December 2013. These patients were operated at Ophthalmology department of JPMC Karachi. All enucleated eye specimens were included, whereas poorly fixed & inadequate tissue, ocular tumor other than retinoblastoma and metastatic tumors were excluded. Formalin fixed, paraffin embedded blocks, surgical pathology & clinical records and Hematoxyline & Eosin slides were used. The relevant clinical

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information and data were collected. Sections were taken and stained with H&E. All slides were studied under light microscope using scanner (4x), low power (10x) followed by high power (40x). The data was analyzed by using Statistical Package for Social Sciences (SPSS) version 22.

RESULTS

A total number of 80 cases were received in the department of Pathology, BMSI, JPMC, Karachi over a period of 5 years. The data showed that total malignancies from all sites were 2726 out of which 80 cases were reported as retinoblastoma. Frequency of retinoblastoma was 2.93% over a period of five years.

Table No.1: Frequency of Retinoblastoma (n=80)

Years	Total no malignancy of all sites	Retino-blastoma	%age	95% C.I.
2009	590	17	2.34-3.62	
2010	648	26		
2011	550	19		
2012	510	14		
2013	428	04		
Total	2726	80	2.93	

CI: Confidence interval

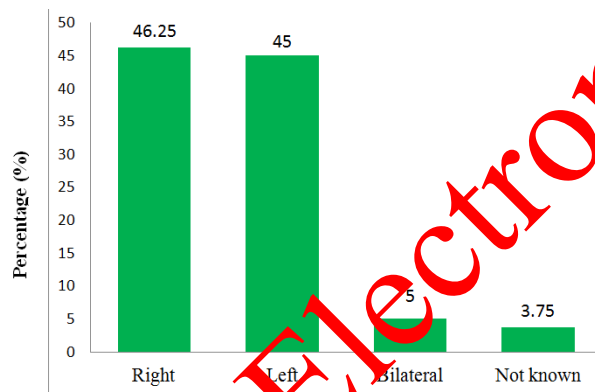


Figure No.1: Distribution of retinoblastoma according to laterality (n=80)

Figure 1 elaborates the laterality. Out of 80 cases, 37 [46.25%] cases were seen in right eye, 36 [45%] cases were seen in left eye, 04 [05%] cases were bilateral and in 03 [03.75%] cases laterality was unknown respectively.

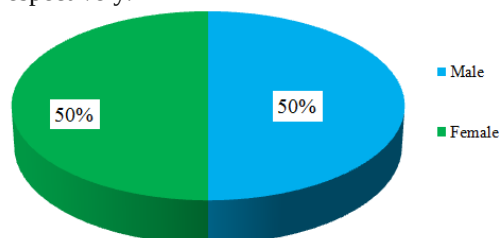


Figure No.2: Distribution of retinoblastoma according to gender (n=80)

Figure 2; shows distribution of retinoblastoma according to gender. Out of 80 cases 40 [50%] cases were seen in each gender. Thus male: female ratio of 1:1.

Table No.2: Distribution of retinoblastoma according to age (n=80)

Age (years)	No of cases	Percentage %	Cumulative index
<1 year	04	05	05
1-2 years	11	13.75	18.75
3-4 years	43	53.75	72.5
5-6 years	16	20	92.5
7-8 years	02	02.50	95
9-10 years	01	01.25	96.25
Unknown	03	03.75	100
Total	80	100	

Table 2; demonstrates distribution of retinoblastoma according to age. Amongst 80 cases, majority i.e 53.75% cases were found between ages 3-4 years followed by 20% cases in 5-6 years. The mean $\pm$ SD were 3.64 years (42.25 months) $\pm$ 1.74, median age was 4 years (48 months). The minimum age was 02 months while maximum age noted was 09 years.

DISCUSSION

In the present study the frequency of retinoblastoma was 2.93%. Our findings are comparable to the figures documented in the studies by Antoneli et al¹², Yeole and Advani¹⁶, Jijelava and Grossinklans et al¹¹ and Li et al⁹ reporting the frequency as 3%, 2 to 4%, 2.4% and 4% respectively.

Regarding laterality this study shows that nearly equal distribution i.e 46.25% and 45% of retinoblastoma were seen in right and left eye respectively. These findings are comparable with the Indian study by Yeole and Advani¹⁶ who reported 41.3% and 40% retinoblastoma originated from right and left eye respectively. In this study 91.25% cases were unilateral and 05% cases were bilateral, these figures are comparable with the Al Shifa Trust Eye Hospital study by Islam et al¹⁰, Akhiwu and Igbe¹⁷ and Chintagumpala et al¹⁵. They reported 72.7%, 82%, 70 to 80% unilateral and 27.3%, 18% and 29 to 30% bilateral cases respectively. The record on laterality was missing in some cases which explains the variation seen in the present study.

In this study male to female ratio was 1:1, which is similar to the studies by Akhiwu and Igbe¹⁷, Rodrigues et al²¹ and Arif et al²² reporting 1.1:1, 1.3:1 and 1.1:1 respectively. An Indian study by Yeole and Advani¹⁶ reported 4:3.1 showing male predominance. This discrepancy could be due to the cultural difference, where only males are brought preferentially to medical attention than females.

The most common age group in our study was 3 to 4 years in 53.75% cases followed by 20% cases in 5 to 6 years age group. These findings are comparable to the figures documented in Edo State of Nigerian Study by Akhiwu and Igbe¹⁷ reporting 3 to 3.5 years and Tata Memorial Hospital Mumbai India study by Yeole and Advani¹⁶ who reported 76.5% to 78 % cases under 4 years of age, but is dissimilar to the studies by Rodrigues et al.²¹, Chintagumpala et al¹⁵ who reported 53% cases under 2 year and 80% cases under 3 year respectively. This discrepancy may be due to poverty, lack of awareness, alternative treatment such as Hakeem's, leading to late presentation in our population.

In this study the mean age was 3.64 years (42.25 months). This finding is in total agreement with the work by Akhiwu and Igbe¹⁷, reporting the mean age ranging from 2 to 4 years (24 to 48 months). But is dissimilar to Arif et al²² and Antoneli et al¹² who showed 32 months and 28.7 months respectively. The reason for this could be late presentation in our population or could be due to environmental and genetic differences.

CONCLUSION

Majority of cases were seen in later age groups i.e 3 to 4 years with high histological grades, so wide scale awareness through education to the community, parents, physicians and counseling program may help to ensure early presentation in initial stage of the disease in order to improve clinical outcomes with less morbidity and mortality.

True frequency of retinoblastoma in our community may be higher than reported, but due to lack of good health services and weakness in referral system, it is impossible to know the true scenario.

Further studies based on larger sample size, with complete clinical and radiological examination with long term follow up is recommended.

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Conflict of Interest: The study has no conflict of interest to declare by any author.

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Effectiveness of Incentive Spirometry in Preventing Postoperative Pulmonary Complications after Laparotomy

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ABSTRACT

Objective: To compare the effectiveness of incentive spirometry with deep breathing exercises in preventing post operative pulmonary complications after laparotomy.

Study Design: Observational Analytic study

Place and Duration of Study: This study was conducted in the Department of General Surgery, CMH Abbottabad from Jan 2014 to Mar 2015.

Materials and Methods: Total of 100 patients fulfilled the inclusion criteria. Patients of both sex and different age groups were included in the study. 50 patients underwent deep breathing exercises and 50 patients underwent incentive spirometry postoperatively in addition to deep breathing exercises for five days. ABGs and the temperature was monitored for five days postoperatively. The findings were recorded and analyzed on SPSS 20.

Results: The mean age for deep breathing exercises was 40 ± 13.34 and for IS was 43 ± 12.76 . the male :female ratio was 1.34:1 for deep breathing exercises and 1.8:1 for incentive spirometry. In group A 52% had no post pulmonary complications while incidence of PPC varied with grade 01 (30%) ,grade 2 (10%) and grade 3 (6%) .In group B 74% had no post operative pulmonary complication while incidence of PPC varied with grade 01 (18%) ,grade 02 (6%) and grade 3 (2%).

Conclusion: Our study showed that the use of incentive spirometry along with deep breathing exercises decreases the incidence of postoperative pulmonary complications as compared to deep breathing exercises alone.

Key Words: Incentive Spirometry, Deep Breathing Exercises, Postoperative Pulmonary Complications.

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INTRODUCTION

Post operative complications including Atelectasis, Infections including bronchitis, pneumonia. They are a major cause of morbidity and mortality postoperatively. Prolonged mechanical and respiratory failure, Exacerbation of underlying chronic lung disease are a significant cause of mortality and morbidity especially after thoracic, cardiac and abdominal surgeries¹. The incidence varies from 2% to 40%.¹ resulting in lengthened hospital stay. Pathophysiology of PPCs is shallow breathing and monotonous tidal volume. Other causes include anesthesia, opioid analgesia, and postoperative pain². There are different modalities to prevent post operative pulmonary complications which include deep breathing exercises, physiotherapy and incentive spirometry.³ Incentive spirometry is used as a tool for lung expansion in many hospitals worldwide. Many studies have been done to compare the incidence of post operative pulmonary complications using incentive spirometry and deep breathing exercises, but there is no clear conclusion.

MATERIALS AND METHODS

The study was conducted in Combined Military hospital Abbottabad from Jan 2014 to Mar 2015 after approval from the hospital ethical committee. A total of 100 patients who had undergone laparotomy were included in the study with each randomly assigned to each group by lottery method.

Exclusion Criteria:

Advanced age	age greater than 65 years
Smoking	smoking history of longer than 40 or more pack-years
COPD	Obesity
	BMI > 30 kg/m ²

Surgical time of 2.5 hours or more

In group A, the patients were advised to perform breathing exercises including diaphragmatic breathing and active cycle of breathing techniques three times daily. The pts were demonstrated how to inhale and exhale to full capacity. In group B, they were trained to do IS along with breathing exercises three times daily with the attempts with IS limited to five at each session. The pts were encouraged to use the IS to full capacity. This was done for a total of five days. Arterial blood gases sample taken after first hour post operatively and

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then daily at noon for five days. Temperature was recorded daily at noon for five days post-operatively. Chest x-ray erect was done on the second post op day. Cough suppressants were not advised. Data analysis was done with SPSS version 20, Statistical analysis with chi square test p value of >0.05 was considered statistically significant. Operational definition of pulmonary complication in accordance with the data is given in table 1⁴.

RESULTS

Table No.1: Operational Definition

Grade 1	minor atelectasis in one lung no fever hypoxemia less than 03 days duration
Grade 2	major atelectasis in one lung /minor atelectasis in both lungs hypoxemia less than 03 days no fever
Grade 3	major atelectasis in both lungs or hypoxemia more than three days or Fever more than three days

The mean age and male to female ratio was given in table 2.

Table No.2: Mean age ratio

	deep breathing exercises	incentive spirometry
Mean Age	40 + 13.34	43+ 12.76
Female:male	1.34:1	1.3:1

The result of the study is given in table 3.

Table No.3: Complications Level * Techniques of Overcoming Chest Inf Crosstabs

Count		Techniques of Overcoming Chest Inf		Total
		Deep Breathing Exercises	Incentive Spirometry	
Complications Level	No PPC	27	37	64
	Grade-1	15	9	24
	Grade-2	5	3	8
	Grade-3	3	1	4
Total		50	50	100

The chi-square test shows that $p\text{-value}=0.207 > \text{Alpha}(\text{level of significance})=0.05$ in table 4.

In group A 52% had no post pulmonary complications while incidence of PPC varied with grade 01 (30%), grade 2 (10%) and grade 3(6%) .in group B 74% had no post operative pulmonary complication while incidence of PPC varied with grade 01(18%), grade

02(6%) and grade 3(2%).there was no mortality and the pt were discharged after post operative recovery. The values for the incidence of PPC in group 2 where decreased and were statistically significant. There was an association between incentive spirometry and the decreased incidence of post operative pulmonary complications

Table No.4: Chi-Square Test:

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.562 ^a	3	0.207
Likelihood Ratio	4.637	3	.200
Linear-by-Linear Association	3.901	1	.048
N of Valid Cases	100		

DISCUSSION

Incidence of post operative pulmonary complications range from 2-40%⁵. Atelectasis, pneumonia, tracheobronchitis, bronchospasm, exacerbation of chronic obstructive pulmonary disease, acute respiratory failure and prolonged mechanical ventilation (longer than 48 hours) can be classified as Post operative Pulmonary Complications.^{6,7} It is a cause of significant morbidity and mortality in post operative patients and also increases hospital stay. Surgery related shallow breathing, bed rest, diaphragmatic dysfunction, pain, and impaired mucociliary clearance may be the first events in a cascade leading to postoperative pulmonary complication Preoperative causes leading to increased incidence of PPC include smoking, history of COPD, extreme age ,emergency surgery and blood transfusion more than 04 units preoperatively. Preoperative causes include increased time of general anaesthesia, administration of appropriate analgesia also determine the incidence of PPC⁸. thoracic and abdominal surgery involves tissue trauma near the diaphragm causing three types of pathologies 1. Decreased respiratory muscle movements caused by incision 2. Postoperative pain restricting muscle movements 3. Reflex inhibition of phrenic nerve and other respiratory nerves restricting muscle movements.⁹ postoperatively prolonged ventilation is also a cause of PPC.

Preoperative preventive measures include cessation of smoking and improving nutrition contribute to decreased PPC.^{8,9,10} There is no significant difference in incidence of PPC between open and laparoscopic surgery¹⁰.

Lung expansion techniques include chest physiotherapy, deep breathing exercises, incentive spirometry, Postural drainage, Continuous positive airway pressure. The efficacy of incentive spirometry in preventing Post operative pulmonary complications is controversial.¹³ Though its use is widespread in the

world for preventing respiratory complications. Some studies show no difference in the incidence in Post operative pulmonary Complications^{14,15,16} while the others show less incidence of PPC with incentive spirometry.^{17,18} prevention of perioperative fluid overload causes decrease incidence of post operative pulmonary complications¹⁹. Postoperative epidural or intravenous analgesia also decreases the incidence of PPC.²⁰ Nasogastric compression postoperatively also decreases incidence of PPC.²¹

Our study included emergency exploratory laparotomies and elective laparotomies. It showed that in patients undergoing laparotomy there was less incidence with deep breathing exercises along with incentive spirometry rather than with deep breathing exercises alone. One of the factor is the active participation of the patient in the process, and the improvement in the inspiration that can be seen objectively on the spirometer. It is less expensive and does not need many resources as chest physiotherapy or CPAP. One limitation of this study was not using lung function tests to objectively evaluate lung expansion. Further studies should be done using lung function tests to evaluate the lung expansion.

CONCLUSION

Though international studies do not show a definite advantage of IS over chest physiotherapy but our study concludes that Incentive Spirometry is an effective tool in preventing post operative pulmonary complications. It should be practiced along with deep breathing exercises to prevent postoperative pulmonary complications.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Awareness and Acceptance of Family Planning in Patients Coming to Gynae Department of D.G.Khan Teaching Hospital

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ABSTRACT

Objective: To determine the frequency of awareness and acceptance of contraception in married women.

Study Design: Cross sectional descriptive study.

Place and Duration of Study: This study was conducted in department of Obs and Gynae of D.G.Khan teaching hospital from 1st April 2014 to 1st April 2015.

Materials and Methods: A questionnaire was designed and it was filled by interview of 200 women. This questionnaire carried socio demographic characteristics of women as well as knowledge and acceptance. This questionnaire includes knowledge of name of different methods and how to access these methods.

Results: As the result, 92.5% women were aware on one family planning method out of 10 but acceptance for usage in one only 60% .The contraceptive prevalence was 33% which was less than 35% CPR from Pakistan national prevalence. Depo-Provera method is followed by 70% as compared to oral contraceptive pills 68% and natural method 50% least known method was vaginal foam tablets/ Jelly 20%. Regarding permanent method, knowledge of sterilization awareness was 81% in females and 60% was in males. Emergency contraception awareness was low 11.5% as in table two.

Conclusion: More efforts are required with the collaboration of print and electronic media to educate the public about the safety and convenience of modern irreversible as well as reversible methods of family planning.

Key Words: Family planning, contraception, knowledge, acceptance, awareness.

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INTRODUCTION

The globe people has been stabilized in urban world but Pakistan having the sixth number in populated country in world is still under the control of quick increasing population. In 2013, population reference Bureau estimated 182.1 million Pakistan's population and is possible near to 295 million till 2050. Population growth rate of Pakistan is 26.8% in 2013 and growth rate is 1.6%. As the result of increasing population in Pakistan, state has difficulties to provide fundamental human facilities such as Health, Housing, Education, food, water, and clothing to its people. So, the Pakistani's government has priority in Family planning Promotion to maintain a balance between the socio-economic development and population growth. validation of this study is to improve the concept of correct contraceptive in women belonging to D.G.Khan which is the center of all four provinces of Pakistan and draining large of area around up to Rakkani

Baluchistan, D.I.Khan from NWFP Muzaffargarh from Punjab Rajanpur Kashmoor from Sindh to show up the value of accessibility and availability services regarding family planning efforts to reduce the Population growth rate. Non users of contraception were evaluated to determine the reason for lack of family planning. Perceived or real side effects are main factors for withdrawal of the use of family planning method. Print and electronic media also has a role which is evaluated to increase the acceptance of and awareness of family planning method.

In recent year such type of studies are needed as to develop suitable program for people to achieve two major objectives firstly to have only the preferred number of kids secondly to have these kids by planed spacing of pregnancies.

MATERIALS AND METHODS

A questionnaire was designed and it was filled by interview of 200 women. This questionnaire carried socio demographic characteristics of women as well as knowledge and acceptance. This questionnaire includes knowledge of name of different methods and how to access these methods.

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Acceptance regarding family planning including different myths, misconception and religious beliefs were also accessed. This questionnaire also carries the involvement of other family members in decision making for the choice of contraception. Results were presented in term of frequencies and percentage. Sampling technique is simple random technique.

RESULTS

As the result, 92.5% women were aware on one family planning method out of 10 but acceptance for usage in one only 60%. The contraceptive prevalence was 33% which was less than 35% CPR of Pakistan national prevalence. . Depo-Provera method is followed quit 70% as compared to oral contraceptive pills 68% and natural method 50% least known method was vaginal foam tablets/ Jelly 20%. Regarding permanent method, knowledge of sterilization awareness was 81% in females and 60% was in males. Emergency contraception awareness was low 11.5% as in table two. Regarding acceptance of family planning methods ,11% Depo-Provera method was commonly used followed by OCPS 4.5% and condom. 2% female sterilization is more accepted option as compared to male sterilization. Knowledge of no contraceptive use of family planning

method was claimed by only 35% of respondent (Fig1) while knowledge of adverse effect of family planning method was 52%, 40% of respondents were aware of protection from AIDS / HIV with use of condom.

Mostly, 55% (Table 3) Media source was used for the awareness of birth control .This study also observed that knowledge of family planning methods increased with education level of females (Table 4) but even educated women were not aware of about the details like when to start the method and when fertility return after discontinuation of any method. A wide knowledge and acceptance gap was observed as like other developing countries mostly due to strict religious believers and misconceptions.

Table No.1: Socio-demographic Characteristic

Age group (Years)	No. of Patients	Percentage of pts	Family planning Awareness
<19 years	13	6.5%	12 (92.3%)
20—34 Years	137	68.5%	158 (96.9%)
>35 years	5	2.5%	23 (95.8%)

Main age 28 year Range (17 to 49 Years)

Table No2: Awareness and acceptance about different F.P methods.

	Any one Method	Depo provera	OCps	Condom	Norplant	IUCD	Vaginal foams	Natural method	Female sterilization	Male sterilization	ECP
Awareness	92.5%	70%	68%	71%	35%	47%	20%	50%	81%	60%	11.5%
Acceptance	33.5%	10.5%	4.5%	4%	3%	2.5%		1.5%	5.5%	2.5%	-

Table No.3: Source of Information

Media	Health Personal	Friends / Others
55%	22%	33%

Table No.4: Awareness According to the educational status.

Illiterate	Primary	Secondary	Intermediate
53%	79%	28%	67%

Figure No.1: Knowledge of non contraceptive benefits

DISCUSSION

Since, 1960, family planning programs were introduced in public sector in Pakistan realizing its values in population growth control. In spite of having the broad vision of Pakistani Government regarding Population control by family planning is still a dream to come true. if we compare Contraceptive prevalence rate with neighboring countries of Pakistan such as 48% in India, 58% in Bangladesh and 70% in Sri Lanka¹ but Pakistani CPR is 35% which is very discouraging². Current contraceptive use in this study was 33.5% as in table 2. This study points out that poor socio economic

status of couples and low small literacy rate of women are major reasons for low CPR. Low earnings are also found as barriers to get the desire result of modern contraceptive method which is mentioned in Pakistan contraceptive demands survey³. Women in Karachi result was reported to be associated with rapid fertility decline due to their better economical and educational status⁴.

So, 92.5% women were aware on one family planning method out of 10 but acceptance for usage in one only 60%. In other studies, the percentage of awareness varied from 94% in Pakistan⁵, 94.2 in skkins⁶, 95.8% in Korea⁷, even up to 100% in a study Bangladesh 09. Awareness about different methods of family planning showed Depo-Provera was the top priority 70% followed by OCPS 68% and condom 71%, Natural method 50% and emergency contraception 12% were among the least known methods while respondent did not know about vaginal foams. Acc to Bangladesh demographic health survey 1993-94 97% knew about Depo-Provera followed by IUCD 90% and condoms 8%. In contrast to study done by Rendition et al showed maximum awareness for oral contraceptive pills 95.8%

followed by condoms 74% and IUCD 72%. While in study done by Srivastava et al IUCD was most commonly used method 61% and condom 50%⁸. Knowledge regarding use of Emergency contraception was higher 30% in study done in South Africa⁹ but in our study it is quite as low as 11.2% in other study in India¹⁰. Regarding permanent method, knowledge of sterilization awareness was 81% in females and 60% was in males.

Thus results are sinister to study done in Bangladesh concept of awareness of female sterilization in women is 99% and only 83% is from male side¹¹. The cause behind this difference of facts between male and female sterilization remain mysterious. So, it is due to common myth of laymen that reproduction is mostly the role of women.

Thus, study believes that print and electronic media are common sources in the changing of public behavior regarding the awareness of population planning, as mention in table 3, 55% and 50.0% as in India¹², by comparing with Korean study⁷ it shows that neighbors, relatives and health centers are main sources to explore the health information. Similarly, Manipur study from India⁸ also attesting that friends (44.0%), media followers (22.0%), relatives (18.0%) and neighbors (16.0%) are main sources of knowledge for the awareness of family planning.

Present study showed that regarding awareness by age group awareness was lowest among adolescent 92.3% mention in table 1 best among 20-34 years age group. Mr. Perk at al believed that older women have low knowledge of family planning due to their illiteracy, there was increased chance of exposure to FP messages through home visits and neighborhood communication¹³. In table 4 it was observed that highly educated women have 100% awareness about the family planning. So, this result is comparable with other studies which were done in Pakistan that educated women have 95% awareness about family planning as compared to 73% illiterate women⁷. Similarly, Bombay Gauteng et al study also attesting that rising in educational level helping to bring the improvement in the acceptance of contraceptive devices.

Regarding the knowledge of non contraceptive profit and undesirable side effects as in Fig 1 there was low level of knowledge of non contraceptive benefits 34.5% in contrast, the knowledge of adverse effect was high 64%. The majority of ordinary causes for discontinuation of FP method was amenorrhea, weight gain vaginal and irregular bleeding due to Depo-Provera. Similarly, in Syria study notions that irregularity to get pills is 44%, 68% IUCD and injectable 54% are major reason for side effect. So, this data points out that right counseling sessions for probable side effect and technique of use for better choice in the acceptance of family planning methods.

CONCLUSION

More efforts are required with the collaboration of print and electronic media to educate the public about the safety and convenience of modern irreversible as well as reversible methods of family planning.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Effects of Lactobacillus (Acidophilus) on Cutaneous Wound Repair with Respect to Neutrophil Count in Comparison with Steroid

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ABSTRACT

Objective: To evaluate the effects of lactobacillus (acidophilus) in repairing of wound with respect to neutrophil count in comparison with steroid therapy.

Study Design: Experimental study

Place and Duration of Study: This study was conducted in the Department of Anatomy of Al-Tibri Medical College Isra University Karachi Campus from June 2014 to October 2014.

Materials and Methods: Randomly selected Wistar albino rats were taken and their weight was between 100 – 150 gms. The rats were divided in three groups on the basis of topical application. Group I was treated with topical normal saline, Group II with topical lactobacillus(acidophilus), and Group III topical Steroid were applied once daily). Each group is further divided into four sub groups according to the day of sampling like group Ia (day 03), group Ib (day 07), group Ic (day 14) and group Id (day 21). Samples were taken on day 3,7,14 & 21 from each group and tissues were processed and stained to observe the neutrophil count that showed rapid healing processes. Data was analyzed on SPSS version 21 by applying ANOVA and post hoc tukey's test.

Results: Results compared the neutrophil count of Lactobacillus group with steroid group and control group. Mean $\pm$ SD of numbers of Neutrophils / x400 in group IIa was 20.500 ± 0.577 , in group IIb 11.250 ± 1.258 , in group IIc 5.7500 ± 0.5000 , group IId 3.7500 ± 0.9574 and in group IIIa was 54.25 ± 2.872 , group IIIb 41.250 ± 2.629 , group IIIc 23.500 ± 3.000 and group IId 18.750 ± 0.957 . The significant value was in group IIa and group Ia ($P < 0.000$), group IIb and group Ib ($P < 0.000$), group IIc and group Ic ($P < 0.000$) and group IId and group Id ($P < 0.000$). Mean $\pm$ SD of numbers of Neutrophils / x400 in groups IIa was 20.500 ± 0.577 , in group IIb 11.250 ± 1.258 , in group IIc 5.7500 ± 0.5000 , group IId 3.7500 ± 0.9574 and group IIIa was 54.500 ± 1.290 , group IIIb 42.000 ± 1.414 , group IIIc 32.000 ± 0.8165 and group IId 28.750 ± 1.258 . The significant value was in group IIa and group IIIa ($P < 1.000$), group IIb and group IIIb ($P < 0.002$), group IIc and group IIIc ($P < 0.000$) and group IId and group IIId ($P < 0.000$).

Conclusion: Lactobacillus showed potent anti-inflammatory effect against both therapeutic groups.

Key Words: Wound, Lactobacillus, Cutaneous, Neutrophil

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INTRODUCTION

The primary role of the skin, it serves as a protective barrier from the environment¹. The damage to the cell, tissues, organs and viscera including the skin is usually restored by a complex process termed as wound healing. Normal pattern of wound healing comprises a sequence of coordinated overlapping procedures or phases that engage acute and chronic inflammation and cell division³. Lactobacillus species and bifidobac-

tarium species were reported as the most frequently used probiotic strains⁴. Lactobacillus species are referred to a group of lactic acid-producing organisms⁵. Lactobacillus acidophilus bacteria produce exopolysaccharides (EPS) that can be associated to a cell's surface or can discharge into the environment⁶. The main factor contributing to the process of healing is extracellular medium which is mainly composed of various structural and functional proteins⁷. After the initial injury while there is formation of fibrin clot, there is extravasation of neutrophils at the site of injury. This is usually accomplished within 24 hours at the margins of wound⁸. Many researchers have focused the role of Lactic acid in wound repair as it is being consumed in cosmetic products such as moisturizers,

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body lotions and exfoliants⁹. Anabolic hormones such as, glucocorticoides, cortisol, mineralocorticoides, prolactin are involved in the protein synthesis¹⁰. The process of wound repair is also enhanced by Dehydroepiandrosteron having potential in wound healing¹¹.

MATERIALS AND METHODS

Design of Study: Experimental study

Setting: Anatomy department of Al- Tibri Medical College Isra University Karachi campus. Conducted after the approval of ethical committee of Isra University from June 2014-October 2014.

Sampling Technique: Randomized

Sample size: A total of 60 Wister Albino rats were divided into three groups on the basis of treatment given. Group I was treated with topical normal saline, Group II with topical lactobacillus (acidophilus), and Group III topical Steroid were applied once daily. Samples were taken on day 3, 7, 14 & 21 from each group and tissues were processed and stained to observe the neutrophil count that showed rapid healing processes. Each group is further divided into four sub groups as follows; group Ia (day 03), group Ib (day 07), group Ic (day 14) and group Id (day 21). Data was analyzed on SPSS version 21 by applying ANOVA and post hoc tukey's test.

Isolation of Lactobacilli: Species of lactobacillus were obtained from yogurt and strains were identified by the Microbiology department of PCSIR, Karachi and grown on (MRS) agar medium and incubated at 35°C for 48 hours. The solution contained 10^{10} to 10^{11} CFU/ml bacteria that were collected every day after 48 hours.

Wound Formation: "Wound" was created on the dorsal surface of rats which was open with full-thickness measuring about $1.5 \times 1.5 \text{ cm}^2$. Tissue was processed and stained to observe the neutrophil count.

Data analysis procedure: Data was analyzed on SPSS version 21 by Applying ANOVA and post hoc tukey's test.

RESULTS

The results compare the neutrophil count among the three therapeutic groups. Basically compare the other with the group applied lactobacillus (B). Results compared the neutrophil count of Lactobacillus group with steroid group and control group. Mean $\pm$ SD of numbers of neutrophils / x400 in group IIa was 20.500 ± 0.577 , in group IIb 11.250 ± 1.258 , in group IIc 5.7500 ± 0.5000 , group IId 3.7500 ± 0.9574 and in group Ia was 54.25 ± 2.872 , group Ib 41.250 ± 2.629 , group Ic 23.500 ± 3.000 and group Id 18.750 ± 0.957 . The significant value was in group IIa and group Ia ($P < 0.000$), group IIb and group Ib ($P < 0.000$), group IIc and group Ic ($P < 0.000$) and group IId and group Id ($P < 0.000$). Mean $\pm$ SD of numbers of neutrophils / x400 in groups IIIa was 20.500 ± 0.577 , in group IIIb 11.250 ± 1.258 , in group IIIc 5.7500 ± 0.5000 , group IIId 3.7500 ± 0.9574 and group IIIa was 54.500 ± 1.290 , group IIIb 42.000 ± 1.414 , group IIIc 32.000 ± 0.8165 and group IIId 28.750 ± 1.008 . The significant value was in group IIa and group IIIa ($P < 1.000$), group IIb and group IIIb ($P < 0.002$), group IIc and group IIIc ($P < 0.000$) and group IId and group IIId ($P < 0.000$) as shown in Figure 1a and figure number 1.1 and 1.3, that showed the decrease number of neutrophil in lactobacillus group as compared with steroid given group.

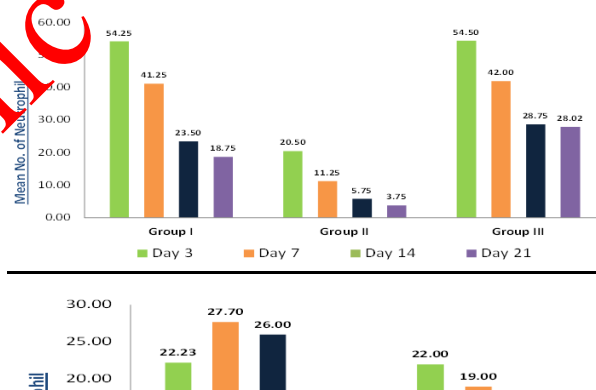
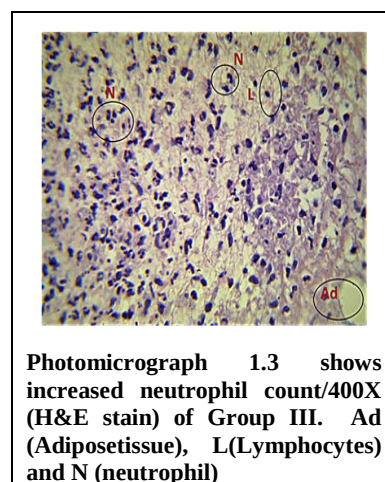
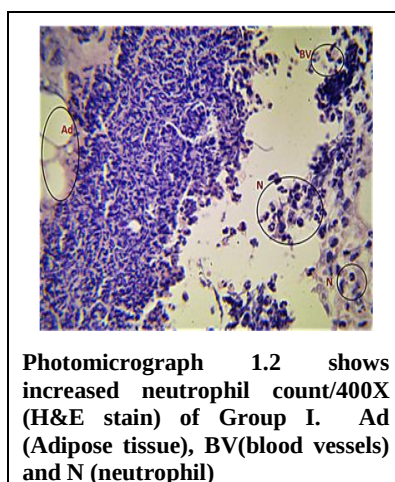
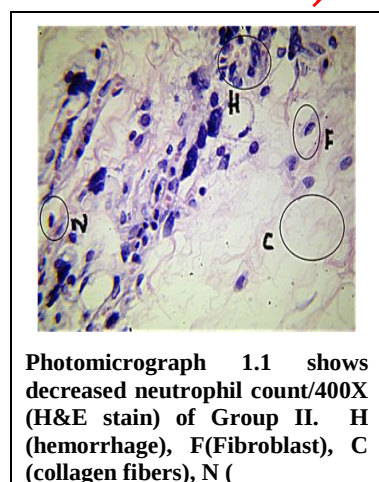


Figure No.1: Mean $\pm$ SD No. of Neutrophil /x 400



DISCUSSION

Lactobacillus can easily be obtained by normal flora and from the food source of our daily life. It has got potential benefits if it is used for the accurate purposes. Few of the studies have also revealed the beneficial role of lactobacillus on the natural micro intestine¹². The induction of live strains of Lactobacillus acidophilus activated the cytokines which in turn are involved in the re-epithelization by production of cell components¹³. Marked reduce count of neutrophil can be seemed in lactobacillus treated group in accordance with some of researcher studies¹⁴. In accordance with Halper J; our study showed significant reduction in neutrophil count in lactobacillus treated group, that's shows the potency of lactobacillus species as a strong anti inflammatory agent. On day 3-4 increase numbers of neutrophil shows inflammatory phase, but this study reports on day 3 decreased in count of neutrophil showed anti-inflammatory role of lactobacilli in comparison with others¹⁵.

CONCLUSION

On the bases of this study it evaluated that Lactobacilli are potent anti-inflammatory agent, as they showed decrease count of neutrophil in inflammatory phase of healing in comparison with other therapeutic groups.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Diagnostic Accuracy of Mammography in Characterization of Palpable Breast Lumps in Benign and Malignant: Keeping Histopathology as a Gold Standard

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ABSTRACT

Objective: To evaluate the diagnostic accuracy of mammography in characterization of palpable breast lumps in benign and malignant; keeping histopathology as a gold standard.

Study Design: Observational / analytic study.

Place and Duration of Study: The study was conducted in Department of Radiology, Ittefaq Hospital (Trust) Lahore in six months duration from July 2013 to January 2014.

Patients and Methods: 300 female patients with palpable breast masses were included in the study. All patients had mammography done to establish diagnosis as benign or malignant, followed by histopathology of the mass (as gold standard) to detect the lesion as benign or malignant. Diagnostic accuracy of mammography was detected by determining sensitivity, specificity and accuracy.

Results: Sensitivity, specificity, and accuracy of mammography were 95.3%, 95.4% and 95.3%, respectively.

Conclusion: The sensitivity, specificity and accuracy of mammography is high for characterization of palpable breast masses as benign or malignant.

Key Words: Diagnostic accuracy, Benign, Malignant, Characterization, Palpable breast mass

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INTRODUCTION

Breast cancer is the most common malignancy in women and the second most common cause of cancer-related mortality. According to WHO, approximately more than 1.2 million new cases are diagnosed worldwide every year.¹ More recently, there has been increase in incidence of breast cancer in developing countries. In fact, Pakistan's population boasts the highest rate of breast cancer amongst all Asian countries as; over 90,000 women suffer from breast cancer.² The Karachi Cancer Registry suggests that the age-standardized annual rate of breast cancer in Pakistan is 69.1 per 100,000.³

Albert Soloman for the first time, after the invention of X rays, studied the breast under X rays and suggested that X rays can be used for diagnostic purpose for breast pathologies.⁴ Mammography was used primarily for early detection of malignancies in their curable stages, to decrease the malignancy related mortality. It is screening tool which is easily available, cheap and fairly accurate with minimal radiation to detect micro

calcifications, spiculated masses and small lymph nodes seen in malignancies. Incidence of breast cancer can be reduced by 30% by routine mammographic screening of healthy women.^{5,6} Women who present with breast symptoms or who have palpable findings on clinical examination are usually investigated with breast imaging, which generally consists of mammography or breast Sonography or both,⁷ but the mammography can demonstrate breast lesion earlier than they can be diagnosed by physical examination. It also screens the rest of ipsilateral breast and the contralateral breast for unsuspected cancer. Mammography is less sensitive in detecting breast cancer in young patients (less than 35years) due to increased density of breast parenchyma.⁸ As compared to screening mammography; the diagnostic mammography is a more comprehensive examination and consists of multiple specialized views like magnification or spot compression view. Because of higher prevalence of signs and symptoms in the population diagnostic mammography has been shown to have higher sensitivity and lower specificity than screening mammography.⁹ The prevalence of malignancy is 24%.¹⁰

The rationale of study was to evaluate mammographic accuracy in characterization of palpable breast lesion in our population as Yankaskas et al¹¹ showed the sensitivity of diagnostic mammography 91% and

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specificity 86% in black women; while according to BCSC¹² (Breast Cancer Surveillance Consortium) data for 2009 sensitivity and specificity of diagnostic mammography for all examinations in white race women is 84.1% and 92% respectively. Study is carried out to see whether the sensitivity in our population matches the above figures. The positive predictive value changes with the change of prevalence of disease so the results of this study will be different as mentioned in the literature. There is one local study which was carried out in 2003 in Peshawar that is 10 year old, as the prevalence of cancer has changes over the time so this study will also reveal the new prevalence of disease in our population. This will help to segregate patients with high risk characters. It will also help to reduce unnecessary interventions thus reducing morbidity. This modality is cost effective and easily available so early diagnosis is assured.

PATIENTS AND METHODS

This study was conducted in Department of Radiology, Ittefaq Hospital (Trust) Lahore in six months duration from July 2013 to January 2014. In this study 300 female patients more than 35 years of age with palpable breast masses were included after taking verbal informed consent, while already diagnosed cases were excluded. Data was collected on a structured Proforma. As a part of triple assessment, proper history and thorough examination by mammographic consultant was done in each case. Female patients underwent mammography which was performed with Planned Sophie Classic RFH 40822 by mammography consultant. All the mammograms were reported according to BIRADS system by mammographic consultant having 5 years experience in mammography. Patients also underwent biopsy by consultant radiologist and specimen were sent for histopathology. Mammographic diagnosis was then compared with the histopathological diagnosis by consultant. The collected data was analyzed on SPSS 10.0 software. Quantitative data like age of the patient was presented in the form of mean $\pm$ SD. Quantitative data like density, shape, margins, calcifications, skin thickening and axillary lymph nodes for benign and malignant palpable breast lumps were presented in the form of frequency and percentages. A 2x2 contingency table was generated to calculate the sensitivity, specificity, PPV, NPV and accuracy of mammography in characterization of palpable breast lump by taking histopathology as gold standard.

RESULTS

In the study, the mean age of the patients was 45.83 $\pm$ 11.32 years [range 35–83]. There were 125 (41.7%) patients of age 35–40 years, 79 (26.3%) patients of age range of 41–50 years, 55 (18.3%) patients of age range of 51–60 years, 26 (8.7%) patients

of age range of 61–70 years, 12 (4 %) patients of age range of 71–80 years and 3 (1%) patients of age range of > 80 years (Table 1). Upon distribution of patients by density, low density lesions were present in 125 (41.7%) patients and high density lesion in 175 (58.3%) patients. (Table 2).

Table No.1: Distribution of patients by age (n=300)

Age (years)	No.	%age
35 – 40	125	41.7
41 – 50	79	26.3
51 – 60	55	18.3
61 – 70	26	8.7
71 – 80	12	4
> 80	3	1

Table No.2: Distribution of patients by characterization of breast masses on mammography (n=300)

Mamographic characterization	No.	%age
Density		
Low	125	41.7
High	175	58.3
Shape		
Oval	40	13.3
Rounded	35	11.7
Lobular	70	23.3
Irregular	160	53.3
Margins		
Circumcised	150	50
Obscured	79	26.3
Microlobulated	50	16.7
Spiculated	21	7
Surrounding architecture distortion		
Absent	132	44
Present	168	56
Overlying skin thickening		
Present	36	12
Absent	264	88
Axillary lymph node		
No cortical thickening	185	61.7
Well preserved hilum	185	61.7
Cortical thickening present	115	38.3
Loss of fatty hilum	115	38.3
Nipple retraction		
Yes	36	12
No	264	88
Number of lesions		
< 1	233	77.7
> 1	77	22.3

The shape of breast lesions on mammography of 40 (13.3%) patients was oval, 35 (11.7%) patients were rounded, 70 (23.3%) patients were lobular, and 160 (53.3%) patients were irregular. (Table 2). The margins of breast lesions on mammography was circumcised in 150 (50%) patients, obscured in 79 (26.3%),

microlobulated in 50 (16.7%) and spiculated in 21 (7%) patients. (Table 2). Surrounding architectural distortion was absent in 264 (88%) patients, and was present in 36 (12%) patients (Table 2). On distribution of mammographic findings of axillary lymph node status it was observed that no cortical thickening and well preserved hilum was seen in 185 (61.7%) patients. However, cortical thickening and loss of fatty hilum was present in 115 (38.3%) patients. (Table 2). Nipple retraction was observed in 36 (12%) patients while it was not seen in 264 (88%) patients. (Table 2). There were 233 (77.7%) patients who had single lesions on mammography findings, while in 77 (22.3%) patients; there were more than one lesion (Table 2). Out of 300 patients included in the study, the mammography was detected to be malignant in 168 patients. Of these, 162 were proved on histopathology, so were labelled as true positive, while rest of the 6 patients were labeled as false positive. Mammography findings were benign in total 132 patients. Out of these 124 were proved benign on histopathology. So, they were labeled as true negative and 8 were proven malignant on histopathology, so were labeled as false negative. (Table 3) The sensitivity, specificity, positive predictive value, negative predictive value and accuracy of mammography for characterization of breast masses as benign or malignant lesion was 95.3%, 95.4%, 96.4%, 93.9% and 95.3%, respectively.

Table No.3: Comparison of mammography findings with histopathology of palpable breast masses (n=300)

Mammography finding	Histopathological findings (Gold standard)		Total
	Malignant	Benign	
Malignant	162 (TP)	6 (FP)	168
Benign	8 (FN)	124 (TN)	132
Total	170	130	300

$$\text{Sensitivity Rate} = \frac{162}{170} \times 100 = 95.3\%$$

$$\text{Specificity Rate} = \frac{124}{130} \times 100 = 95.4\%$$

$$\text{Positive predictive value} = \frac{162}{168} \times 100 = 96.4\%$$

$$\text{Negative predictive value} = \frac{124}{132} \times 100 = 93.9\%$$

$$\text{Diagnostic accuracy} = \frac{286}{300} \times 100 = 95.3\%$$

DISCUSSION

Breast masses are psychological and social trauma for the female. These can even be malignant. The single most widely used investigation for the detection of breast masses is mammography. However, most of the time, it is not specific and the patients may have to undergo biopsy for the correct diagnosis. In this study, we evaluated the diagnostic accuracy of mammography for the detection of malignant or benign disease on mammography of the breast masses. The results of the study were in favor of mammography with high values of sensitivity (95.3%), specificity (95.4%), and diagnostic accuracy (95.3%).

The mean age of the patients in our study was 45.83±11.32 years. In a study by Devoli-Disha et al¹³ the mean age of the patient was 56 years, ranging from 33 to 77 years. This study included 546 patients with palpable breast masses. The mean age of the patients as described in study by Nascimento et al¹⁴ was 49±12 years. The patients' ages ranged from 37 to 61 years. We observed that 41.7% women were in the age range of 35–40 years. This represents that in our population, the women with younger age may be affected more with breast masses and need screening for the problem. In our study, we observed that 168 (56%) patients were shown to have malignant disease in our study. This figure was higher than other studies. In study by Michell et al¹⁵ frequency of malignant breast masses was 26.8%. However, they included all the patients who presented with screening and in their study; the normal mammography was observed in 35.4% patients. Nascimento et al¹⁴ observed 58.3% were benign and 41.7% were malignant. In study by Devoli-Disha et al¹³ the frequency of malignant lesions was 47.4%. All these diagnosis of malignancy was based on histopathology findings.

Our study showed a high sensitivity (95.3%), specificity (95.4%) and diagnostic accuracy (95.3%). Some other studies in world have also evaluated the diagnostic accuracy of mammography for detection of malignant diseases.

In a study by Devoli-Disha et al¹³ the sensitivity of mammography was 52.1% and specificity was 73.9% for detection of malignant breast disease. This was a low sensitivity and they declared mammography as a non reliable investigation. Nascimento et al¹⁴ determined that the sensitivity of mammography was 68%, specificity 76% and accuracy 75%. Michel et al¹⁵ conducted a study to detect the diagnostic accuracy of mammography for detection of malignant masses. They also observed a very high sensitivity of mammography i.e. 97.5%, specificity 51% and high NPV of 98.3%. Yankaskas et al¹¹ conducted a study to determine the diagnostic accuracy of mammography and showed that the sensitivity of diagnostic mammography was 91% and specificity 86%. According to BCSC¹² (Breast Cancer Surveillance Consortium) data for 2009 sensitivity and specificity of diagnostic mammography for all examinations in white race women was 84.1%

and 92% respectively.

We also stratified our data according to the mammography characteristics of the patients. We observed a higher frequency of patients with high density i.e. 58.3%. The density of the lesion may help in characterizing the tissue. It is a known fact that there is a direct association between the increased mammographic density and an increase in the risk for development of breast cancer. However, Nascimento¹⁴ observed that the PPV for heterogeneously dense breasts was 43.8%.

A variation in shape of the lesions was observed. However, the most common shape found in our study was irregular, which was observed in 53.3% patients. With regards to round and oval shapes, these were associated to a high NPV, between 75% and 71%. Microlobulated and lobular shapes also presented a high PPV, between 90% and 70%. Surrounding architecture distortion was seen frequently among both malignant and benign cases. With regard to margins, the NPV for circumscribed margins was 84.2%, while the PPVs for indistinct and spiculated margins were 24.5% and 90%, respectively.¹⁴ Overlying skin thickening was seen in only 12% cases. Axillary nodal cortical thickening and the loss of fatty hilum was also detected in 38.3% cases. This is also suggestive of malignancy, but not seen frequently in our study. There were few limitations of the study. This was a single center study with a limited population size. All the mammography reports were interpreted by an expert radiologist who had at least 5 years experience of interpreting the radiographs. The reproducibility of the results in hands of inexperienced is not known.

CONCLUSION

This study concludes a very high sensitivity, specificity and diagnostic accuracy of mammogram for characterization of malignant and benign diseases. However, there are few false negative and false positive which merit that evaluation of palpable breast masses should be conducted with addition of some other modalities like USG and histopathology in highly suspected cases.

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Effective Time Management Practices: Awareness and Perceptions

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ABSTRACT

Objective: The purpose of this study was to compare the role of time management skills among academic and administrative staff in an institute

Study Design: Descriptive Study

Place and Duration of Study: This study was conducted at a Army Medical College, Rawalpindi from July 2015 to September 2015

Materials and Methods: Fifty participants were selected through random sampling. After the informed consent the questionnaire was given to the administration and faculty staff of the public sector medical college. Questionnaire based survey was conducted to collect data regarding demographic, awareness about time management and practices to manage time effectively at the institution. Does their organization observe active time management? Has time execution effectively been useful in the accomplishment of their set objectives? Does interaction with the difficult people, role of procrastination and appropriate scheduling effects the effective time management.

Results: Twenty-eight (fifty six percent) males and twenty-two (forty four percent) females with mean age of 43.54 ± 7.58 participated in the study. Four (eight percent) were not married and 46 (ninety two percent) were married. Mean job experience of the participants was 17.55 ± 7.36

Conclusion: The awareness and perception of the both the genders regarding the effective time management factors is important to plan and execute institute management

Key Words: Time management, Training, Effective tool, Work experience

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INTRODUCTION

Time management training is the most operative tools to augment the efficiency of group work.¹ Time organization training provides participants an exceptional preparation and administrative schemes that help them to enhance performance and improve time management skills. As a director or a sales man, time is the most precious benefit.¹ Effective time management cannot be twisted when suitable. This skill is an important component of one's life and can help to achieve life's goal. Time management helps to build imaginary chain reaction and enable us to accomplish and achieve our tasks more efficiently.²

"Time is a unique quantity that requires it and it passes at the same amount for everyone. Time management involves exploiting time to regulate what one wants out of his happenings."³ It is important to differentiate between insignificant and significant and make the right decision at right time is the key of success and an important element of the efficiency.¹

The literature suggests that excessive work load; administrative stress contributes towards difficulty integrating professional and personal life.⁴ Studies have

been focused on individual interventions to give training on stress reduction rather than organizational interventions.⁵⁻⁷

Time management enables a person to be more productive and efficient. It is technical method for any organization to increase the efficiency and performance of their workers.⁸ Though, practicing the time management is not a easy task and organization may encounter problems. The leading author defines time as events going after one another and defines management as the governing the activities'. Therefore, it becomes the act of regulatory.⁹

Research to observe and ponder the people about time includes sociological exploration that analyse time as a social structure. Psychophysical exploration shows time as a mental paradigm where perception of time compares with "clock" time. These explorations agreed that values and social behavior accomplish that how an individual might execute their goals and motivate themselves about time in a certain way and their related conduct.^{1, 10-12}

MATERIALS AND METHODS

Fifty participants out of a probable population of 128 placed at the public sector medical college as managerial and academic staff were selected after random sampling for the survey based study during from July to Sep 2015. Questionnaire was distributed

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the academic and administrative staff of the public sector medical school after informed consent obtained. Closed ended questions with multiple choices like (Strongly agree, Agree, Undecided, Disagree, Strongly Disagree) were asked. The questions were carefully prearranged in line with the perseverance of the study. The questions were answered without any sort of pressure and the job experience of each participant accordingly. The data collected regarding demographic, awareness regarding the time management and effective time management practices in the institute. Has effective time management been supportive to attain their set objectives? Does interaction with the difficult people, role of procrastination and proper preparation effects the effective time management.

Data analysis: Data was analyzed by statistical software SPSS version 21. Categorical data was expressed in frequencies and percentages. Chi square test was used for the comparison of all the questions among the gender. A p -value <0.05 was considered significant.

RESULTS

Twenty-eight (56%) males and twenty-two (44%) females were a part of this study with an average age of

43.54 $\pm$ 7.58. Four (8%) were unmarried and forty-six (92%) were married. Average work experience of these members was 17.55 $\pm$ 7.36.

The response rates of the question no 1: Have you heard about time management before? Shows that 28 (100%) of the male and 22 (100%) of the females said yes. All the respondents are well aware of time management. Response shows that 27 males (96.4%) and 21 (96%) females strongly agreed to the question 2: do you think you need effective time management in your organization? statement. Responses show that participants strongly agreed on need of an effective time management in their institution. Data of 71% male and 63% females was in agreement of practicing effective time management in their organization. Most of the respondents also agreed that practicing time management has improve their achievement, efficiency and output.

Participant data gave an interesting finding that organization was lacking to hold seminar on time management. Most of participants were agreed that stay away from problematic people can enhance their time management skill. Strongly agree was 21(26.5%), agreed 7 (8.8%) undecided while 7 (8.8%) disagreed.

Table No.1: Responses of both the genders to time management questions.

S #	Question	Question Option	Male		Female		P-value
			Frequency	%age	Frequency	%age	
1	Are you aware of effective management of time?	Yes	28	100 %	22	100 %	--
		No	0	0 %	0	0 %	
2	Is it your belief that effective time management is of significance at your workplace?	Agree	27	96.4 %	21	96 %	1.000
		Disagree	1	3.6 %	1	4.5 %	
3	Is effective time management a common practice in your place of work?	Agree	20	71.4 %	14	63.6 %	0.558
		Disagree	8	28.6 %	8	36.4 %	
4	Do you achieve your targeted goals by effectively managing your time?	Agree	27	96.4 %	22	100 %	1.000
		Disagree	1	3.6 %	0	0 %	
5	Do you agree that efficient management of time improves productivity?	Agree	27	96.4 %	22	100 %	1.000
		Disagree	1	3.6 %	0	0 %	
6	Does the management of your company hold seminars on time management?	Yes	3	10.7 %	5	22.7 %	0.277
		No	25	89.3 %	17	77.3 %	
7	Does avoiding difficult people (time wasters) aid in managing your time?	Agree	22	81.5 %	19	86.4 %	0.715
		Disagree	5	18.5 %	3	13.6 %	
8	Is procrastination a time waster?	Agree	25	92.6 %	20	90.9 %	1.000
		Disagree	2	7.4 %	2	9.1 %	
9	Does having a record list of chores on daily basis help to manage time?	Yes	26	92.9 %	22	100 %	0.497
		No	2	7.1 %	0	0 %	
10	Is planning a major contributor to time management?	Agree	27	96.4 %	22	100 %	1.000
		Disagree	1	3.6 %	0	0 %	

Most participant, 25 male 92.6 % and 20 females 90.9% strongly agreed that procrastination causes wastage of time. From the responses, most of the respondents 92.9 % males and 100% female strongly agreed that daily work plan helps in time manage. From the responses, most of the respondent's 96.4 % males and 100 % females strongly agreed that planning is pivotal for the efficient management of time. Table 1.

When the responses were compared statistically no significance was achieved. Male and female responses irrespective of their job and service duration shared the same knowledge and perceptions regarding the time management skills and factors.

DISCUSSION

Performance can be gauged by constant positive outcome of various projects over a long time period. Performance is the litmus test for the stability and success of an organization which can only be achieved by constantly following a strict time management plan. An organization can only be marked excellent performer if it out performs its competitors without fail for a longer period.¹³

Some studies have paid attention to three types of behaviors in regard to time management, that is: time assessment behavior, planning behavior and monitoring behavior.¹⁴ In our study participants were aware of the need to- maintain the things to do list to guide through a busy life and to help keep on track. In time assessment behavior one should have knowledge of past, present and the future and should be conscious of the proper use of time with an ability to take responsibility to fulfill the assigned task within the time limit adeptly. In planning behavior all the tools of setting goals, identifying the priorities, planning activities and group tasks must be followed with an aim of using the time effectually. The focus of monitoring behavior is to be alert of the use of time while going through all the planned chores. This can be done by creating such pointers that help to minimize the environmental interruptions.¹⁵

Successful time management is based on the key to plan ahead and then follow the planned schedule which only works if surrounding and the outlook of others is also changed. In our study respondents were aware of the purpose of effective goal setting to achieve successful and decisive actions in a lesser time frame. Successful people have in communal that they are extremely focused and goal oriented. The 80-20 rule can be the start of a successful time management by setting such goals that will provide 80 percent of the reward with an effort of only 20 percent. This can be achieved by planning the daily tasks providing time for interruptions as well. Pressing errands contain immediate penalties but important tasks contain objective-oriented results.¹⁶ This can be avoided by setting a cutoff date or time for highlighted tasks.

Eliminating useless breaks also makes the task easier.¹⁷⁻¹⁹

It also saves time if unplanned burning matters of family and friends be avoided. Giving importance to your goals and saying "no" to unimportant in life also helps.²⁰ Managing time wisely should become a personality trait for all the people working for an organization for it to be asuccessful.²¹ It is possible by constant reminders by the management to its employees by conducting regular workshops to create awareness.

The respondents were aware that in order to overcome our procrastination, we must first understand what causes us to procrastinate. A majority of the time we procrastinate is because we find the task we are trying to complete hostile. We decide the job is too boring to harvest our full attention and resolve to spend time elsewhere. We fail to see the importance in finishing a task on time and often neglect deadlines. When our brains become scattered, all the attention we give to completing a task goes out the frame.²² Multiple tasks can cause stress to crash down on our decision-making skills. It's important to remember that just because we forget about an important task doesn't mean it is going to disappear.

CONCLUSION

The awareness and perception of the both the genders regarding the effective time management factors is important to plan and execute institute management

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Conflict of Interest: The study has no conflict of interest to declare by any author.

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To Detect the Dyslipidemia in Patients with Rheumatic Arthritis

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ABSTRACT

Objective: To determine the abnormalities of lipid profile in patients with rheumatic arthritis.

Study Design: Cross sectional study

Place and Duration of Study: This study was conducted in the Department of Medicine, Peoples University of Medical and Health Science, Nawabshah and MMC Mirpur khas from 2011 to 2013.

Materials and Methods: Total 48 patients with RA were selected. All the equitable investigation was done. The patients were chosen for the study after a brief medical history. Patients with smoking and alcohol habits, those suffering with systemic disease like diabetes mellitus, hypertension and those on corticosteroids, statins, immunosuppression and vitamins supplementation, liver, kidney, thyroid abnormalities, ischemic heart disease, pregnant and post menopausal women were excluded. Lipid profile HDL, LDL, TC and TG were checked in all the cases after an overnight fasting of 12 hours. All the data was entered in the written proforma.

Results: Total 48 cases were selected in the study after diagnosis of RA, mean age of the cases was found 36.5 ± 7.2 years, female found in the majority 30/62.5%, mostly patients were married 33/72.9%. A significant difference was found in the lipid profile, HDL was found low in majority of cases 17/35.4%, while TG was high in the majority of the patients 15/31.2%.

Conclusion: In the conclusion of this study dyslipidemia is highly associated with RA disease. In patients with RA disease lipid profile should be checked necessarily, to reduce the morbidity and mortality due to cardiovascular disease.

Key Words: Rheumatic Arthritis, Dyslipidemia, Lipid Profile

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INTRODUCTION

Rheumatoid arthritis the most widely challenging joint inflammation, along with lifetime predominance of up to 1% throughout the world.¹ Onset can happen in the any age, however tops somewhere around 30 to 50 years.² Disability is extremely numerous. In U.S. accomplice, 35% of the cases having RA disease had work incapacity after ten years. RA is differentiated with pathways of inflammation that prompt multiplication in the joints of the synovial cells. Consequent pannus arrangement may prompt basic cartilage elimination and the bony erosions. Over manufacture of pro-inflammatory cytokines, as well as TNF (tumor necrosis factor) and the interleukin-6, force the damaging process.⁴ Like as different autoimmune diseases, the RA disease etiology may multifactorial. It is demonstrated that RA influences 0.51% of the grown-up populace of created regions.^{5,6} Albeit a few patients have gentle self-restricted disease, numerous experience joint demolition, extreme physical incapacity and various co-morbidities.⁷ Cases having

Patients with rheumatoid arthritis (RA) had big ratio morbidity and mortality than the all inclusive community, which is profoundly credited to an expanded threat of cardiovascular sickness (CVD) in the patients with RA.⁸ lipid profile after some time and its association with serological markers and the inflammation, in cases those late developed RA.⁹ Lipid concentrations give off an impression of being changed as a consequence of RA disease movement. Information on aggregate cholesterol (TC) and (LDL-C) levels in RA cases are incompatible: a few studies show similar¹⁰ or lower concentration of TC, while others exhibit expanded concentrations of TC and LDL-C in cases with initial RA disease.¹¹ In spite of the fact that reports on lipid profiles in the cases with RA different, developing proof recommends that patients with dynamic untreated RA have decreased aggregate cholesterol TC, LDL-cholesterol, and HDL-cholesterol concentrations.^{12,13} Despite the TC alterations in cases with RA disease, with a reduction in HDL-C, a few studies encourage the idea that RA prompts the more atherogenic lipid profile (TC to HDL-C proportion).¹⁴ Aim of this series to find out abnormalities in lipid profile in patients with rheumatic arthritis.

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MATERIALS AND METHODS

This cross sectional study was conducted at medicine department of Peoples University of medical and health science Nawabshah, and MMC Mirpur khas. Downright 48 cases with RA were chosen with the span of time from 2011 to 2013 after analyzed by 1987 reexamined criteria of the American College of Rheumatology. Informed consent was acquired from every person. Complete medical history and physical examination were carried out. All the requirable investigation were done. The patients were chosen for the study after a brief medical history. Patients with smoking and alcohol habits, those suffering with systemic disease like diabetes mellitus, hypertension and those on corticosteroids, statins, immunosuppression and vitamins supplementation, liver, kidney, thyroid abnormalities, ischemic heart disease, pregnant and post menopausal women were excluded. Lipid profile including HDL, LDL, TC and TG were checked in all the cases after an overnight fasting of 12 hours. All the data was entered in the written proforma. All the was analyzed in SPSS program version 16.0.

RESULTS

Total 48 cases were selected in the study after diagnosis of RA, mean age of the cases was found 36.5 ± 7.2 years, female found in the majority 30/62.5%, while male were 18/37.5%, mostly patients were married 35/72.9%, and rural area's patients fund most common 28/58.4%. Table 1.

21.8% cases were found with mild condition, 45.8% cases were with moderate, while 33.4% cases were noted with severe condition. Figure 1.

A significant difference was found in the lipid profile, HDL was found low in the majority of the cases 17/35.4%, while TG was high in the majority of cases 15/31.2%. Table 2.

Table No.1: Basic information of the patients n=48

Characteristic	Frequency/%
Mean age (mean$\pm$SD)	
Mean disease duration (mean$\pm$SD)	36.5 ± 7.2 years 4.2 ± 2.1 years
Gender	
Male	18/37.5%
Female	30/62.5%
Marital status	
Married	35/72.9%
Unmarried	13/27.1%
Residence	
Rural	28/58.4%
Urban	20/41.6%

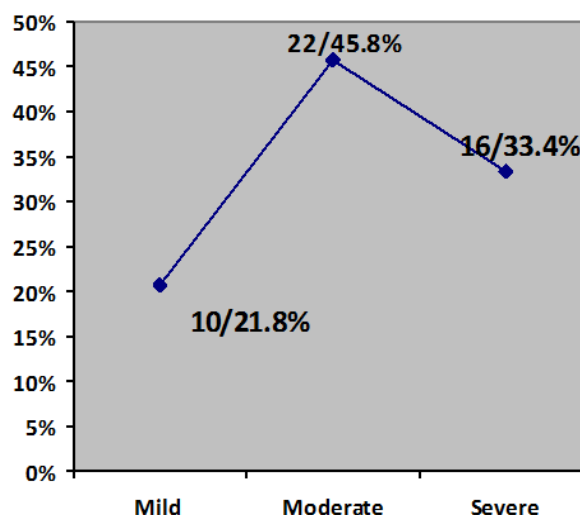


Figure No.1: Disease severity n=48

Table No.2: Lipid profile of the patients n=48

Lipid Profile	Normal Frequency/%	Low Frequency/%	High Frequency/%
TC	20/39.7%	14/29.2%	14/29.2%
LDL	45/93.8%	00	03/6.2%
HDL	30/62.5%	17/35.4%	01/2.1%
TG	32/66.7%	01/1.1%	15/31.2%

DISCUSSION

Dyslipidemias are large progressively perceived as an imperative contributory variable towards the advancement of CVD. CVD are additionally the main source of death in different various autoimmune diseases mostly Rheumatoid Arthritis. Patients having this disease length of time over 5 years have been accounted for to have 52 times more serious risk of MI than coordinated controls.¹⁵ Older age and female sex are connected with expanded risk of RA, in spite of the fact that the sex differential is less conspicuous in old patients.¹⁶ In the study mean age of the cases was found 36.5 ± 7.2 years, similarly Nisar A et al,¹⁷ mentioned mean age of patients 34.15 ± 7.73 years, and he found female in the majority. Pregnancy often causes RA remission, likely because of immunologic tolerance.¹⁸ As well as in present study female were 62.5%, and male were 37.5%, and mostly patients were married 72.9%. Sreekantha et al¹⁹ reported mean age 41.7 ± 6.5 years, and disease duration 6.8 ± 4.4 years. While in this study mean of disease duration was found 4.2 ± 2.1 years. Parity may have long-lasting impact; RA is less likely to be diagnosed in parous women than in nulliparous women.²⁰ We also found majority of the cases were married. Disease 21.8% cases were found with mild condition, 45.8% cases were with moderate, while 33.4% cases were noted with severe condition. Imran MY et al²¹ reported that RA was mild in 32.35% cases, moderate in 33.33% cases and high disease activity was in 34.31% of the cases.

In a series of Toms and colleagues,¹⁵ it is mentioned that patients with RA disease, were found with decreased TC, decreased LDL, decreased HDL developed the atherogenic index. Nisar A et al,¹⁷ found highly of abnormal lipid profile in cases having RA as; decreased HDL in 15.3%, low TC in 13%, high TC in 20.5% and increased TG in 15.3% cases. Similarly in the present study a significant difference was found in the lipid profile, HDL was found low in the majority of the cases 35.4%, while TG was high in the majority of the patients 31.2%, TC was raised in 29.2% cases and also low in 29.2% cases. Another study of Kowsalya R et al,²² stated that cases with RA had decreased HDL; raised TC and increased LDL. Hadda et al,²³ also reported that a big association of RA disease with lipid profile, as dyslipidemias was in 38.5% of the total study cases and decreased HDL abnormality was the most common in 34.3% of the cases. Geordiadis et al.²⁴ demonstrated that early RA showed higher TC, LDL and TG, while HDL was significantly decreased. Lakatos J et al,²⁵ mentioned significant dyslipidemia in cases having RA. Furthermore Myasoedova et al.²⁶ stated that decreased TC is related to high risk of cardiovascular disease, raised TG is also developed CVD event. Further he reported that in RA, link of lipids profile with CVD may be different than without RA cases.²⁶ It is conformed in our series that dyslipidemia highly linked with RA disease, but some results are different from above international studies, this may due to difference of ethnicity. While this is also mentioned in the study of Cesur et al²⁷ that patients having RA may have different results of dyslipidemia country to country.

CONCLUSION

In the conclusion of this study dyslipidemia is highly associate with RA disease. In patients with RA disease lipid profile should be checked necessarily, to reduce the morbidity and mortality due to cardiovascular disease. Big sample size studies are needed to determine the more conformation of the abnormalities of lipid profile in patients with RA.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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An Early Experience of Laparoscopic Cholecystectomy from K.M.C / Civil Hospital Khairpur Mir's

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ABSTRACT

Objective: To see feasibility, per operative difficulties and overall results of lap: Cholecystectomy in our newly established minimal invasive surgical setup.

Study Design: Randomized Descriptive study.

Place and Duration of Study: This study was conducted in Surgical Department of newly established Khairpur Medical College/ Civil Hospital Khairpur Mir's from August 2014 to May 2015.

Materials and Methods: The data of all the 100 patients with the diagnosis of gall stone disease was entered in specific proforma, who were admitted at K.M.C / Civil Hospital Khairpur Mir's. The consent for laproscopic procedure was taken prior to surgery. All the base line blood and radiological investigations were done. Cardiac and general anesthesia opinion were also taken. The procedure was carried out by conventional "four port" method on scheduled elective operation list.

Results: In this study male to female ratio was 1:6.1 and mean age was 38.1 years. In 52 patients gall bladder was non inflamed and callot's triangle was clear but in 48 cases various kinds of abnormalities were present. In 40% cases operative technique was modified by different means. Conversion rate remained 09%. In 56 cases operative time was 40 mints, in remaining 44 patients it was beyond 40 mints. Post operatively 26 patients developed various minor and major complications. There was no mortality in our series.

Conclusion: Lap: Cholecystectomy is safe and effective procedure, applicable to any general as well as teaching hospital. Over all our results are acceptable according to the national and international studies.

Key Words: Cholelithiasis, Laproscopic Cholecystectomy Early Experience

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INTRODUCTION

Gallbladder stone disease has become now one of the commonest indications for elective as well as emergency surgery. Management of cholelithiasis and its complication has evolved dramatically and there have been significant change in the management of patients since the introduction of Laproscopic cholecystectomy in the mid 1990.¹ Professor Dr. Med Erich Muhe of Boblingen, Germany, Performed the first Laproscopic cholecystectomy (LC) in 1985.² He did 94 procedures before another surgeon, Phillipe Mouret of Lyon France, performed his first Laproscopic cholecystectomy in 1987.³ After that Laproscopic cholecystectomy (LC) has almost replaced open cholecystectomy and proved to be an effective and gold standard procedure for the treatment of symptomatic gallstones, worldwide. Since 1987, Laproscopic cholecystectomy started the rate of open

cholecystectomy has continuously decreased. Now in developed countries less than 20% of the total cholecystectomies are performed by open method.⁴ Despite these advances, significant variability in approaches, care and outcomes in gall bladder disease management are reported.⁵ The Skill of the surgeon, experience in Laproscopic techniques and thorough knowledge of the risk factors are important for Laproscopic management of gall stone disease in difficult situation without increasing the morbidity.⁶ The Laproscopic surgery has also few technical limitation like loss of three dimensional perception, indirect contact with intra-abdominal organs, limited tactile feedback while doing dissection and manipulation of tissues. These kinds of difficulties some time leads to conversion of the procedure to open cholecystectomy. Conversion to an open procedure should not be considered a complication, and the possibility that it will prove necessary or advisable, should always be discussed with the patient prior to surgery. In most series, conversion rates are higher with emergency operations. Reported rates range from 1.5% to 15%, with most studies reporting rates around 5% in elective cases.⁷ The term difficult cholecystectomy is

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considered as multiple per-operative difficult situations which can lead to the risk of complications and also prolong the operation time.⁸⁻⁹ The operative mortality for lap: cholecystectomy is less than 1 per cent. Post operative complications can occur 10-15 per cent of cases.¹⁰ The purpose of this study is to see the feasibility, difficulties, complications and over all outcome of the Laproscopic cholecystectomy in our newly established setup of minimal malinvasive surgery.

MATERIALS AND METHODS

This randomized descriptive study was carried out on first hundred cases of Laproscopic cholecystectomies, during the period of ten months, from August 2014 to May 2015 in the Surgical Department of newly established Khairpur Medical College/ Civil Hospital Khairpur Mir's. The criteria of inclusion were all those cases who were medically fit and desired to be operated by LC. The criteria for exclusion was medically unfit patients due to cardio-pulmonary diseases, chronic liver diseases with coagulopathies and patients unfit for general anesthesia due to any other reason. All the cases were operated with the help and guidance of experienced surgeon, who already has performed more than 300 hundred Laproscopic cholecystectomies. Rest of the surgeons were also involved to facilitate, assist and learn the technique. The specific proforma was filled for all these patients and the analysis of whole the data was done through SPSS 10.

RESULTS

In this study total 100 cases were operated, we found 86 females and 14 male patients. The mean age group in males was 44.2 Years and in females 38.03 was. Male to female ratio was 1:6.1. Majority of the cases were in between the 31 to 40 years age group.

Table No.1: Age & Sex Wise Distribution

Age in Years	Male		Female		Total	
	n	%	n	%	n	%
19-30	2	2	23	23	25	25
31-40	5	5	39	39	44	44
41-50	2	2	10	10	12	12
51-60	3	3	8	8	11	11
61 & Above	2	2	6	6	8	8
Total	14	14%	86	86%	100	100%

Per operative difficulties during the procedure were encountered in 44 cases. Gall bladder perforated in 10 cases, mild to moderate oozing of blood from G.B bed occurred in 08 cases, difficulty in grasping and dissection of gall bladder occurred in 12 cases, stones were dropped in 04 cases. Injury to cystic artery was experienced in 02 cases and in 01 case, stomach was perforated. In 04 cases gall bladder delivery was

difficult and in 03 cases the creation of pneumo peritoneum was also not smooth.

Table No.2: Per Operative Difficulties/ Encounters

Sr. No.	Difficulties & Encounters	N	%
1	Creation of pneumo peritoneum.	3	6.9
2	Grasping of the G.B.	7	15.9
3	Dissection of G.B.	5	11.4
4	Perforation of G.B.	10	22.8
5	Spillage of G.Stones.	4	9.1
6	Oozing from the G.B Bed.	8	18.2
7	Injury to cystic artery.	2	4.6
8	Stomach perforation	1	2.3
9	Difficult delivery of G.B from Epi: Port.	4	9.1
10	Creation of pneumo peritoneum.	3	6.9
	Total	44	100%

In 40 cases out of 100 the operative technique was modified and certain additional work was done. In 13 cases, gall bladder was decompressed. Packing with gauze piece was carried out in 04 patients. Out of 40 patients, in 05 cases, retrieval bag was used to facilitate the delivery of gall bladder. At the end of procedure the gall bladder bed side and sub hepatic area were washed with normal saline and mopped in 06 cases, followed by the placement of sub hepatic drain.

Table No.3: Modification of The Operative Technique

Modification of the technique	Male n=	%	Female n=	%	Total n=
Gall Bladder decompression	04	10	09	22.5	13
Packing with gauze	01	2.5	03	7.5	04
Use of retrieval bag for delivery of G.B	02	5.0	05	12.5	06
Wash with N/Saline & Mopping	01	2.5	06	15.0	08
Placement of Sub hepatic Drain	02	5.0	07	17.5	09
Total	10	25%	30	75%	40

Table No.4: Duration of Surgery

Time (mints)	n	Male	%	Female	%
1. < 40	56	07	(12.5)	49	(87.5)
2. > 40	44				
i. 41-60	35	05	(11.4)	30	(68.2)
ii. 61-90	6	01	(2.3)	05	(11.4)
iii. 91-120	3	01	(2.3)	02	(4.6)

Operative time was also calculated in every case. 56 patients were operated within 40 mints, rest of the 44 patients, operative time was beyond 40 mints. 35 patients were operated in between 40 to 60 mints, 06

patients the procedure remained continue for 90 mints and the remaining 03 patients the procedure was even more prolonged and it consumed 90 to 120 mints.

The post operative complications were also recorded up to period of 03 months. Most of them, 15 out of 26 (57.5%) were minor but in few 11 (41.9%) cases they were considerable and required treatment. Early post operative complications were abdominal pain in 05 (19.2%) cases, vomiting in 3 (11.5%) cases, fever in 04 (15.3%) cases, wound infection in 03 (11.5%) cases, sub hepatics collection in 03 (11.5%) cases, biliray leakage through nelaton drain in 02 (7.6%) cases. The late complications which occurred in our patients were port site hernia in 01 (3.8%) case, post operative jaundice in 02 (7.6%) cases, epigastric wound sinus in 01 (3.8%) case and Post cholecystectomy syndrome in 02 (7.6%) cases.

Table No.5: Post Operative Complications

Complications	Male (n)	Female (n)	Total (n)	%age
i. Abdominal Pain	01	04	05	19.2(%)
ii. vomiting	01	02	03	11.5(%)
iii. Fever	01	03	04	15.3(%)
iv wound infection	0	03	03	11.5(%)
v sub hepatics collection	01	02	03	11.5(%)
vi Biliray leakage	01	01	02	7.6(%)
vii wound site hernia	0	01	01	3.8(%)
viii Post operative jaundice	0	02	02	7.6(%)
ix Epigastric pore sinus	0	01	01	3.8(%)
x Post cholecystectomy syndrome	0	02	02	7.6(%)
Total	05	21	26	100%

DISCUSSION

The open cholecystectomy has continues decreased in number after 1987, when first Laproscopic cholecystectomy was performed. In developing countries less than 20% of the total cholecystectomy are performed by open method. In Pakistan the open procedure is still common due to lack of skill and availability of instruments.¹¹⁻¹² Conversion rate of 2.0% to 15.0% have been reported in difference studies.¹³ However the outcome of Laproscopic cholecystectomy is influenced greatly by the training, experience and the judgment of the surgeon.

Our present study elaborates the early experience of Laproscopic cholecystectomy in terms of per operative findings, difficulties, duration, morbidity and post operative complication. In this study 86% patients were female and 14 patients were male, which matches the national and international research papers¹³. Mean age is slightly less than reported in the literature¹⁴⁻¹⁵ Out of 100 patients 44 cases were those, where some type of difficulties were observed. Gall bladder

perforated in 10 cases, which were handled by applying liga clips or holding the perforation site by grasper. In 12 cases gall bladder found edematous and thick walled, the grasping and dissection from it's liver bed was also difficult. Most surgeons agree that timing of the procedure is an important factor in determining the outcome, in the cases of acutely inflamed gall bladder. However operation within the "golden 72 Hours" from the onset of symptoms has been suggested. Out of such 12 cases, we performed the surgery successfully in 10 cases, but the procedure was converted to open in remaining 02 cases. In 04 cases we also faced difficulties to deliver the gall bladder from 10mm epigastric port, because of large stones and edematous thick walled gall bladder. In that situation we extended the incision to facilitate it's delivery. This kind of modification also has been applied by others.¹⁶

In 40 percent of the cases, routine operative technique was modified due to certain unusual circumstances and difficulties which were created during the procedure. In 13(22.5%) cases, gall bladder was decompressed prior to dissection and in 04(10%) cases, gauze peace was placed temporary to control the diffuse oozing from liver bed. In 05 cases (12.05%) surgical glove made retrieval bag was used to facilitate the delivery of gall bladder. In those cases where the oozing was not controlled fully, to remain on safe side, sub hepatic drain was also placed for next 24 hours.

In this study we also calculated the time spend on procedure as well as sort out the various factors responsible for prolong procedure. Majority of cases (56%) were done within the period of 40 mints, rest of the cases (44%) operative time took more than 40 mints, even in certain (03%) cases, procedure prolonged up to 120 mints. Significant factors which increased the operating time were, previous abdominal surgery, intrahepatic gallbladder, multiple large calculi, and very thick walled gallbladder. Two other identified factors were, unclear calots triangle and large distended gall bladder.

In this study, the operative time of our earlier cases was greater than that of latter cases. This could be because of edematous, tense, and hypervascular tissue planes. However this finding is comparable to others¹⁷.

In our study we also observed post operative complications which occurred up to the follow up till 03 months. 15 out of 26 (57.5%) were minor and non significant complications, like fever, abdominal pain, vomiting and wound infection. In other 11(41.9%) cases, more significant complications were seen. They were mild to moderate subhepatic collection, which accrued in 03 (11.5%) cases, and biliray leakage through nelaton drain in 02 (7.6%) cases. We successfully treated both of them without any major intervention. Sub hepatic collection was drained by percutaneous ultra sound guided aspiration and this

leakage stopped spontaneously within a period of one week post operatively.

In this series we experienced these complications which perhaps were minor duct anomalies arising from liver bed, which healed spontaneously. Other late post operative complications which we faced were, umbilical port site hernia in 01(3.08%) case, and post operative jaundice in 02(7.6%) cases. One among these two cases required referral to specific centre at other station for E.R.C.P and stenting. Symptoms of post-cholecystectomy syndrome occurred in 02(7.6%) cases, which were treated non-operatively.

Our conversion rate to open cholecystectomy remained 09%. Review of national and international data show, their conversion rate of 1.5% to 19% in various studies.¹⁸ The conversion rate is high among different studies from developing countries like Pakistan^{19,20}. In our series this conversion rate seems reasonable because in our team one of the experienced person who did more than 300 Laproscopic cholecystectomies, guided and demonstrated the procedure in almost all the cases. The reason for conversion was dense adhesions around the gall bladder and in Calot's triangle which made dissection extremely difficult and completely hampering the proceeding. The other reasons were instrument failure and break down of electricity with inadequate back up of power energy.

CONCLUSION

Laproscopic cholecystectomy is a safe and effective procedure in our setup and has proved to be applicable in any general as well as teaching Hospitals. Overall results are acceptable in comparison to national and international results. The training of new surgeons, Paramedical staff by experienced teachers and availability of the instruments and devices are mandatory requirements to start this procedure in a new setup.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Acute Poisoning and its Medicolegal Aspects in Patients Presenting at a Tertiary Care Hospital of Sindh

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ABSTRACT

Objective: To assess acute poisoning and its medicolegal aspects in patients presenting at a tertiary care hospital of Sindh.

Study Design: Observational Study

Place and Duration of Study: This study was carried out at Liaquat University Hospital Jamshoro/Hyderabad from April 2014 to June 2015.

Materials and Methods: 240 cases of acute poisoning were studied presenting at the outpatient departments and emergency wards of the Liaquat University Hospital Jamshoro/Hyderabad. Acute poisoning cases were selected according to inclusion and exclusion criteria. Tools used for gathering information were the; information obtained from attendants/relatives, history of patients him/herself, clinical presentation, clinical signs and symptoms, laboratory findings and moreover response to anti poisoning therapy. Data was analyzed on *statix software* 8.1 (USA). Data was analyzed using student's t-test and Chi-square test for continuous and categorical variables respectively. P-value ≤ 0.05 was taken significant statistically.

Results: Of 240 subjects, 147 (61.25%) were male and 93 (38.75%) were female. ($p=0.01$). Most of study subjects belong to low social class in present study. Mean age of subjects was 45 ± 7.7 years. Male outnumbered to female as regards the acute poisoning ($p=0.001$). Acute poisoning for suicide purpose was noted in 54.1 % ($n=130$) of study subjects. Kacha sharab, organophosphate and diazepam were the most commonly used agents for poisoning purpose.

Conclusion: Acute poisoning is increasing due to commonly available poisons such as drugs and pesticides. The public sector authorities should take measures for the proper implementation of handling of drugs, poisons and pesticides.

Key Words: Acute poisoning, Suicide, Organophosphates, Drugs, Sindh

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INTRODUCTION

Acute poisoning has become a major social and health problem of developing countries.¹ The acute poisoning may be intentional or accidental. The intentional cases are raising this days.^{2,4} The published literature shows a considerable rise in the overall cases of acute poisoning.⁵

Most cases of poisoning are reported as self administered intentionally with young age groups. The commonest poisons used for suicide purpose include pesticides, corrosives, and some of the vegetable toxins which are easily available.⁶ Acute intentional poisoning often proves life taking and usually culminates in death of the person in most of the cases.¹

Acute self administered poisoning either by a drug or a chemical is a serious medical emergency and resulting mortality is very high.¹ Increasing incidence has been

suggested due to illiteracy and ignorance, both of which are prevalent in developing countries and contribute to the poisoning at the most. Currently, the chemicals and drugs are easily available hence frequently used for the acute poisoning whenever and wherever needed.⁵

The Suicide attempts are influenced by the religious beliefs, cultural norms and more over the social and financial problems of the era. Currently, the drugs had frequently been used for the suicide purpose and a rise has been noted and reported.⁷⁻¹⁰ The nature and profile of acute poisoning is variable from social class of a society, to country or a geographical locality.^{1,5}

Like any developing country in World, similar are conditions of ignorance prevalent in Pakistan in handling and sale of poisons, drugs and chemicals. There are big gaps in the surveillance system in Pakistan and there is no prohibition of drug sale and purchase although the laws are present but implementation is not followed properly. Easy access to poisonous substances is a risk, all the time present in society. Implementation, if proper, of the laws to handle the poisons may decrease the acute poisoning cases. Patterns of poisoning are changing from time to time

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hence new information of the prevalent situation must be updated, this will help in the effective management of acute poisoning as early as possible and effective. The present study was conducted at our tertiary care hospital to study the patterns of acute poisoning and its medico-legal aspects.

MATERIALS AND METHODS

A sample of 240 cases of acute poisoning was studied presenting at the outpatient departments and emergency wards of the Liaquat University Hospital Jamshoro/Hyderabad. Study was conducted from April 2014 to June 2015. Acute poisoning cases record was kept separately. Study subjects were recruited through non probability purposive sampling. Adult patients of acute poisoning presenting at the casualty department wards were approached and included in the study protocol. While patients of snake bite, food poisoning and children were excluded from study. Acute poisoning was defined as poisoning of recent onset with lethal chemical or drug agent which might jeopardize life of victim. Tools used for gathering information were the; information obtained from attendants/relatives, history of patients him/herself, clinical presentation, clinical signs and symptoms, laboratory findings and moreover response to anti poisoning therapy. A pre-structured Proforma was designed for collection of patient's information. Age, gender, society class, and in particular the poisoning agent and its cause of intake were noted. Data was analyzed on *statix software 8* (USA). Data was analyzed using student's t-test and Chi-square test for continuous and categorical variables respectively. P-value ≤ 0.05 was taken statistically significant.

RESULTS

Of 240 subjects, 147 (61.25%) were male and 93 (38.75%) were female. ($p < 0.001$). The male to female ratio was 1.58:1. The gender distribution of study subjects is shown in table I. Most of study subjects belong to low social class in present study as shown in table I. And not the less, majority of subjects belonged to rural areas.

Table No. I: Demographic characteristics of study population (n=240)

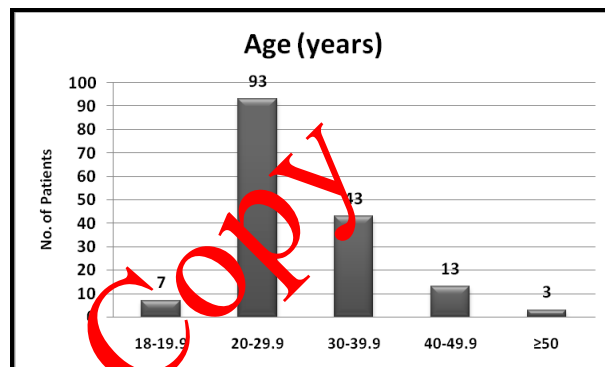
	No.	%
Male	147	61.25
Female	93	38.75
Lower social class	181	75
Middle social class	43	18.3
Upper social class	16	6.6
Rural	211	88.3
Urban	29	11.6

The mean age of subjects was 45 ± 7.7 years. Age wise distribution of study subjects is shown in graph-1. Most of subjects belonged to third decade of life. More male

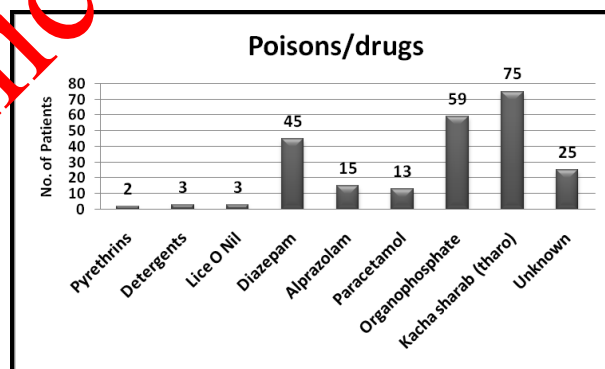
were found suffering from acute poisoning compared to female ($p=0.001$).

Table No.2: Problems in study subjects with suicidal attempt

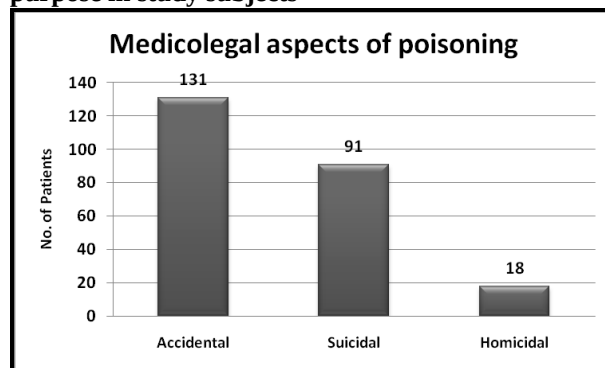
	No.	%
Financial problems	45	34.6
Family problems	23	17.69
Social problems	11	8.46
Marital issues	9	6.92
Chronic illness	8	6.15
Failure in love	16	12.30
Unknown/undetermined	18	13.84



Graph No.1: Age categories of study subjects



Graph No.2: Poisons and drugs used for suicide purpose in study subjects



Graph No.3: Medico-legal aspects of poisoning

Table 2 counts the frequency of problems faced by study subjects with suicidal attempts. Family problems

and financial problems were the commonest noted problems.

Acute poisoning for suicide purpose was noted in 54.1 % (n=130) of study subjects. Poisons and drugs used for committing suicide are shown in graph 2. Kacha sharab, organophosphate and diazepam were the most commonly used agents for poisoning purpose.

DISCUSSION

The present study is the first being reported from our tertiary care hospital on acute poisoning and its medico-legal aspects. Acute poisoning incidence is increasing in our country. This may be because of social problems, economical issues and family conflicts. Lack of money is another issue of lower social class these days which is contributing much to the problems. On the other hand, the community has free access to the drugs, poisons and chemicals because of no implementation of laws and rules. National registries are nonexistent, hence cases of acute poisoning are un reported and under reported.

Acute poisoning for suicide purpose was noted in 54.1 % (n=130) of study subjects in present study. Kacha sharab, organophosphate and diazepam were the most commonly used agents for poisoning purpose. Acute organophosphate poisoning was the second frequent cause of poisoning in present study. This is because of lack of handling of pesticides by the villagers and farmers, which puts them at risk of serious poisoning.¹¹ A previous study¹⁴ reported aluminum phosphide poisoning while in present study kacha sharab (hand-made local alcohol) was commonest, this contrast is because of prevailing situation and availability of the poisons.

Similarly, drugs like hypnotics and tranquilizers are easily purchased from chemists and are used for illicit purpose including suicide. Our finding of benzodiazepines misuse is consistent to a recent study reported from developing country, the Bangladesh.¹

The male gender was frequently affected as noted in present study; our findings are consistent to a previous cited study.¹² In present study, the male to female ratio 1.58:1 which is consistent to above study.

Majority of our study subjects belonged to rural areas of lower social class. The lower social class is suffering a lot of anxiety and family problems mostly because of socio economic crisis. Our finding is comparable to previous studies¹³⁻¹⁵ which reported approximately 2/3 poisoning cases belonged to lower social class.¹³⁻¹⁵

Organophosphate pesticide poisons was noted in 59 of cases which is a large number and this indicates un controlled use of pesticides. Our finding is consistent to previous studies¹⁶⁻¹⁹, but contrary to another study in terms of number or organophosphate poisoning.⁵

Previous studies¹²⁻¹⁵ had reported suicidal and homicidal poisoning as common which is contrast to our present study as we observed majority cases of

accidental poisoning. It is concluded that the laws should be strictly implemented to save the lives of innocent community members. Mortality and disability of society members may be saved by proper sale of drugs and proper handling of pesticides.

CONCLUSION

Acute poisoning is increasing due to commonly available poisons such as drugs and pesticides. If these agents are handled properly, the mortality may be reduced. The public sector authorities should take measures for the proper implementation of handling of drugs, poisons and pesticides.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Health Behaviors and Loneliness in Young Adults

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ABSTRACT

Objective: To study the relationship of Health Behaviors with loneliness.

Study Design: Cross- Sectional Study.

Place and Duration of Study: This study was conducted in Lahore College for Women University, Lahore from January to June, 2015.

Materials and Methods: Health Behavior Checklist¹ and the Loneliness Scale² were employed in the study. The sample comprised 240 students selected through systematic random sampling from Government College University and Lahore College for Women University.

Results: Results showed that preventive health behaviors had a negative correlation with loneliness whereas risk taking behaviors were positively correlated with loneliness. Moreover the male participants had higher scores on the emotional loneliness subscale in comparison to the female participants who scored higher on the social loneliness subscale.

Conclusion: As loneliness increases the engagement in preventing health behaviors decreases. Similarly the same increase in loneliness is linked with increased risk taking behaviors.

Key Words: Health, Behaviors, Loneliness

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INTRODUCTION

One of the major causes of disease and illness today is human behavior. In many developed countries like USA, continuing patterns of human behaviors or in other words human lifestyle has been linked to the foremost causes of death³.

The World Health Organization⁴ identifies health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." According to Gochman⁵ Health Behaviors are "those personal attributes such as beliefs, expectations, motives, values, perceptions, and other cognitive elements; personality characteristics, inducing affective and emotional states and traits; and overt behavior patterns, actions and habits that relate to health maintenance, to health restoration and to health improvement."

Studies have identified various factors which affect our health related behaviors, some of these factors include, socioeconomic status, age, gender, peer group, personality, familial influence, knowledge, previous experience, etc.

The Health Belief Model (HBM) presented by Hachbaum⁶ discusses the demographic, socio-psychological and personal variables affecting health behaviors as moderating variables. According to this model these moderating variables along with the

perceived seriousness of, and perceived susceptibility to, a health condition, the benefits of and barriers and cues to performing particular health behaviors, as well as the person's self efficacy have an impact on his health related actions and habits.

Conner and Norman⁷ distinguished different types of health behaviors. They stated health enhancing behaviors (healthy eating habits and exercising, etc), avoiding health harming actions and behaviors (smoking, drug addiction, inactivity, alcohol consumption, overeating, etc.), health protective behaviors (vaccination, condom use, regular visits to the physician, etc) and sick role behaviors (complying to the medical advice given by the doctor, taking medicines regularly, etc.)

According to Belloc and Breslow⁸ obtaining a better perspective on the psychosocial antecedents of these health-related behaviors can lead to the development of elaborate disease and illness models as well as competent disease prevention strategies. Identifying and comprehending the variables and characteristics that facilitate in maintaining health enhancing behaviors in adults can help to promote, maintain, and enhance these behaviors⁹.

Health and particularly health behaviors are influenced by a wide range of social and psychological variables. Loneliness is one of those variables which have an impact on health behaviors and has both social and psychological facets.

The Cognitive discrepancy theory defines loneliness as the distressing feeling that occurs when one's social

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relationships are perceived as being less satisfying than what is desired¹⁰. Peplau and Perlman¹⁰ considered loneliness to be a subjective feeling which results when there is an incongruity between desired and actual levels of interpersonal relationships.

Emotional loneliness is the feeling of missing an intimate relationship whereas social loneliness is the feeling of missing a wider social network¹¹.

Talking about the signs and symptoms of loneliness, Russell et al.¹² observed that lonely college students were likely to display anger, self enclosure, emptiness and awkwardness.

Similar to health and health behaviors, the construct of loneliness is also affected by various psycho-social factors. These include gender, age, personality, marital status, culture, society, etc.

Loneliness might lead to decreased physical activity¹³, increase the risk of obesity¹⁴ and may raise the risk of health damaging and compromising behaviors including alcohol abuse¹⁵.

Study of the association of health behaviors and loneliness would lead to better understanding of health behaviors in young adulthood. During young adulthood an individual becomes mature and gains greater self control. The individual becomes more independent and parental influence tends to fade, placing more responsibility on the individual for making decisions regarding his or her health related behaviors. Understanding the association between loneliness and health behaviors would help psychologist in developing strategies for promoting health behaviors among people.

According to Lauder, Mummery, Jones, and Caperchione¹⁵ loneliness is an individual's perception of social exclusion and it is commonly experienced by adults. Christakis and Fowler¹⁶ discovered that having a supportive social network can help in diminishing risky behaviors such as smoking, unsafe sexual activity and an unhealthy diet.

In comparison to lonely individuals, those who have significant social connections and have a satisfying social life have to face pressure from their social circle to adopt a healthy lifestyle and to seek medical help when they need it.¹⁷

Several studies have been conducted to discover the association between health behaviors and loneliness. A cross-sectional study involving Russian and American adolescents showed an association between loneliness and health risk behaviors in both boys and girls.¹⁸ Lonely individuals have also been found to be physically less active¹⁴.

However, Cacioppo, Hawkley, and Berntson failed to find any noteworthy difference in smoking, physical activity and caffeine and soda consumptions between individuals who had higher and those who had lower scores on the UCLA Loneliness Scale¹⁹. Moreover another study failed to find a correlation between loneliness and six health behaviors including exercise,

meal regularity, alcohol use, hard drug use, smoking, and hours of sleep²⁰.

MATERIALS AND METHODS

This cross sectional study was conducted in Lahore College for Women University, Lahore from January to June, 2015.

Sampling Strategy: Systematic random sampling was used to select participants from four departments of Government College University and Lahore College for Women University. From the list of enrolled students every third student was selected as a participant of this study. From each University a total of 120 students were selected with 40 students taken from each of the three mentioned departments. Furthermore, eight students were selected from each of the chosen semesters of BS and MS.

Participants: The sample comprised 120 male and 120 female university students between the age range of 18 to 24 years.

Inclusion Criteria:

- Both male and female university students were included.
- Students aged 18 to 24 years were included.

Exclusion Criteria: Students lying outside ages 18 to 24 years were debarred from the study.

Measures: Two main instruments were used along with the consent form and the Demographic Information Sheet. Health Behavior Checklist (HBC)¹ consists of 26 items and uses a 5 point Likert scale. Four dimensions of health behaviors are assessed by this scale including two dimensions measuring Preventive Health Behaviors, that is, The Wellness Maintenance and Enhancement Dimension and The Accident Control Dimension; the other two dimensions measuring Risk Taking Behaviors, that is, The Traffic Risk Taking Dimension and The Substance Risk Taking Dimension. The loneliness Scale, an 11-item version, was employed for gauging loneliness².

RESULTS

Table No.1: Relationship of HLC and Loneliness with Health Behaviors in Young Adults

Variables	1	2	3	4	5	6
Emotional Loneliness	-	.333**	-.156*	-.208**	.322**	.210**
Social Loneliness		-	-.134**	-.004**	.188**	.148**
Wellness Maintenance and Enhancement Behaviors			-	.754**	-.355**	-.319**
Accident Control Behaviors				-	-.286**	-.355**
Traffic Risk Behaviors					-	.304**
Substance Use Risk Behaviors						-

Note: **p< 0.01, *p< 0.05

Correlation analysis and independent sample t- test were applied on the data using SPSS.

It was hypothesized that there is a significant relationship between loneliness and health behaviors. Table 1 indicates that both emotional and social loneliness had a significantly negative correlation with preventive health behaviors and a significantly positive relationship with risk taking behaviors.

The second hypothesis was that there are gender differences in health behaviors and loneliness of young adults. The results reveal significant differences in the

scores of Health Behaviors and Loneliness between the genders. The results of independent sample t- test indicate that girls had higher scores on wellness maintenance and enhancement subscale ($t = -2.977, p < 0.01$) and accidents control subscale ($t = -3.963, p < 0.01$) while boys scored higher on the substance use risk subscale ($t = 4.749, p < 0.01$). Boys had significantly higher scores on emotional loneliness ($t = 3.419, p < 0.01$) whereas girls scored higher on social loneliness subscale ($t = -3.379, p < 0.01$).

Table No.2: Gender Differences for Health Behaviors and Loneliness

Variables	Male		Female		t(238)	p	Cohen's d
	M	SD	M	SD			
Wellness Maintenance and Enhancement Behaviors	27.417	9.225	30.767	8.174	-2.977	.003**	-0.365
Accident Control Behaviors	17.058	5.771	19.775	4.806	-3.963	.000**	-0.257
Traffic Risk Behaviors	18.650	5.469	17.283	5.281	1.969	.050	0.127
Substance Use Risk Behaviors	6.183	2.732	4.608	2.395	4.749	.000**	0.741

Note: ** $p < .01$, * $p < .05$

DISCUSSION

This study involved young adults, those between the age group of 18 to 24 years. In Pakistan 21.5 % of population lies between the age of 15 to 25 years²¹. It has been seen that despite having health related issues comparable to those of adolescents, very few studies have focused on the health behaviors and health issues faced by young adults. According to Arnett²², young adults or emerging adults might be likely to engage in risky behaviors as a part of self exploration in order to obtain a wide variety of experience before they become an adult when the roles and duties of adult life won't allow them such experimentation.

The purpose of the current study was to explore the relationship of health behaviors with loneliness in young adults. Two types of health related behaviors were examined in this study, that is, preventive or health enhancing behaviors and risk taking behaviors.

It was revealed by the results that both emotional loneliness and social loneliness were negatively correlated to accident control and wellness enhancement behaviors, whereas a positive connection existed between loneliness and risky behaviors. We can assume that the low social support and perceived emotional warmth might lead people towards health damaging behaviors such as substance abuse, as a way to cope with their loneliness. Having a huge circle of friend puts pressure on the person to adopt healthy behaviors practiced by his/ her group and to give up the unhealthy ones. Moreover, one's social network also provides helpful information about health care and enhancement

Loneliness has been associated in past literature with health damaging behaviors such as drinking alcohol,

smoking, abusing marijuana^{14, 23, 24}. In addition studies have also observed that loneliness also interferes with the performance of health enhancing behaviors such as physical activity and a healthy diet and leads to consumption of fattening food^{25, 14}. Conversely, having an adequate social and emotional support helps in diminishing unhealthy behaviors²⁶ and promotes the healthy ones.¹⁷

CONCLUSION

This study examined health behaviors of young adults in relation to their experience of loneliness. It was deduced from the results that loneliness had a significantly positive relationship with risk taking, and a significantly negative correlation with preventive health behaviors. Therefore it can be said that as loneliness increased in the sample health related risk taking increased whereas the same increase in loneliness was linked with a decline in health enhancing behaviors. Gender differences were also observed as social loneliness scores were higher in females whereas the male participants were more emotionally lonely. There is a need to introduce such activities in the community and educational institutions which provide an opportunity to build social networks so that the young adults feel less lonely and more connected.

Recommendations: It will be worthwhile to conduct a comparative study to find out disparities in health behaviors, and loneliness among adolescent, young adults and older adults. Also, young adults belonging to the upper class and lower class can be recruited to see whether the data yields similar results as in the case of participants from the middle socioeconomic class.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Relationship Between Nutritional Health and Academic Performance of School Going Children

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ABSTRACT

Objective: The objective of the present study was to examine the significance of breakfast and nutrition with reference to academic performance of school aged children.

Study Design: Cross-sectional study.

Place and Duration of Study: This study was conducted in Lahore College for Women University, Lahore from March to April 2011.

Materials and Methods: 368 children of grade 3-5, both boys and girls, from five private schools of Lahore were studied using purposive sampling. To see the nutritional level and academic performance of children, two self - constructed questionnaires, a) Child Nutrition and Performance Questionnaire and b) Child's Performance Questionnaire were designed and used to collect the data.

Results: The findings suggest that the children of regular breakfast group are high in academic performance as compared to irregular breakfast and no breakfast groups. The correlation between nutritional value of breakfast and academic performance was found to be significant.

Conclusion: Considering the importance of children's health, this study can show new directions to nutritionists, diet planners and researchers interested in health and well being of children.

Key Words: Breakfast, Nutrition, Academic Performance

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INTRODUCTION

During the childhood daily routine in a twenty four hour period, the biggest interval in which a child lacks the outside supply of energy and nutrients is generally between the meal in the evening and the next morning breakfast. This long gap lowers the child's energy level as well as ability to perform up to the mark. The child physical and mental development needs an adequate supply of nutrition and this supply gives the child energy to perform properly both at home and at school.¹ Breakfast and its effects on children's performance have been a central area of concern for educators, nutritionists and health professionals. As the highly essential meal of the day, a breakfast can influence directly or indirectly many aspects of child growth and development. Breakfast is the beginning of a fresh start after the night's fast. Approximately 12 hours pass between dinner and breakfast and during that period of sleep the body continues to operate, and utilize the food consumed earlier. Therefore as a consequence of that night's fast the blood sugar level of the hungry person is at its minimum level. Insufficient energy supply to

the brain leads to deprivation that might lead to poor performance. The individual can suffer from problems such as tiredness, headache, low attention span and perception deficiency.²

According to one research, the child's ability to pay attention, performance on problem-solving tasks, and memory can be improved through the habit of breakfast.³ A healthy breakfast has also been linked to fewer absences and less tardiness.⁴

Lots of Asian countries are under rapid developmental changes. We can see that these changes are no doubt improving people's economic status and their standard of living. But this increase in urbanization is also affecting the healthy eating habits negatively as reflected in the increasing trend of consuming processed and junk food.

People can provide good quality food to their children, but fail to do so because of the lack of awareness and insufficient information about food properties. In Pakistan very little work has been done on the importance of breakfast, especially its relationship with children's academic performance. The present endeavor was designed to see the link between nutritional health and performance of school aged children.

In an earlier research it was observed that regular breakfast eaters scored high in tests as compared to no breakfast group.⁵ The importance of breakfast was seen with reference to the academic success in the work of

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some other authors too. Starting school breakfast program, a significant improvement was seen in the math grades of students.⁶ Students who are regular breakfast eaters are good and very good in their school performance.⁷

According to the Food Research and Action Centre, children who eat breakfast have high cognitive function with increased attention span and memory. Skipping breakfast among children can cause memory problems with poor academics. The same source confirms that children's habit of skipping breakfast decreases the ability to differentiate among visual images. Children who eat regular breakfast as compared to breakfast skipper make less mistakes, work fast in math problems and vocabulary test.⁸

The relation of nutrition and academic performance was seen in Malaysian school children of primary level. They explored academic performance's correlation with the aspect of breakfast taking.⁹ Junior school children who participated in school breakfast program scored high in math scores.¹⁰ The habit of taking breakfast can increase memory, and marks in school grades.¹¹ Another research showed that children who eat regular breakfast are high in energy levels and perform better in learning abilities than the no breakfast eating group.¹² Similar findings are reported about better marks on math.¹³

MATERIALS AND METHODS

This cross sectional study was conducted in Lahore College for Women University, Lahore from March to April 2011.

Sampling strategy: The 368 participants, both boys and girls, in classes 3-5 were selected through purposive sampling from branches of the private schools of Lahore including City School, Defense Public School, Salamat School Systems, Crescent Model Higher Secondary School, and Muslim Grammar School. The sample covered junior school grade 3(N=139), 4(n=117) and 5(N=111). Information about these children was gathered from their mothers and teachers. In case of non availability of mothers, the fathers were included. 368 parents in all were contacted.

Inclusion Criteria:

- Male and female private school students belonging to middle and upper middle class
- Students without a known chronic disease.

Exclusion Criteria:

- Students in public schools
- Students having a known chronic disease

Measures: Child Nutrition and Performance Questionnaire (CNPQ) and Child's Performance Questionnaire (CPQ) were designed and used for the data collection.

The CNPQ was sent alongwith children's diaries to their mothers to be filled out at home and returned. In

some cases the fathers too filled it out. Some mothers who could not be sent the CNPQ due to various reasons were interviewed in school on result day. CPQ was given to teachers for ratings on children's performance.

RESULTS

Three main breakfast intake categories were examined in the presen research; 200 (54.34%) participants were regular breakfast eaters, 124 (33.70%)were irregular, and 42 (11.41%) did not have the habit to take breakfast in the morning.

The participants were also asked to mention the number of food group that they took in their breakfast.

Table No.1: Food groups consumed in breakfast/ given in lunch box

S.No	food groups
1	Dairy group (milk, butter, cheese, etc)
2	Cereal group (roti, bread, paratha, cereal, biscuits,noodles etc)
3	Fruit group (apple, banana etc)
4	Meat and egg group (kabab, home made curry, omelet)
5	Dessert group (pastry, sweet etc)
6	Junk food group (chips, burger, etc)
7	Any other

(Each group has 2 points. The more the variety of foods the child is taking the more the score will be)

Most of the participant took one type of food group in their breakfast rather than variety of food group i.e., balanced diet.

The list of behavioral and health complaints were also gathered about the participant from the mother of the participant. Health complaints comprised of weak eye sight, headache, asthma, tonsils, skin problems and issue of underweight whereas behavioral complaints included fighting with sibling, weeping in morning time, etc. The teachers' account about the child was taken in the form of behavioral and academic complaints too. Behavioral complaints consisted of over activity or hitting other children, whereas academic complaints comprised of poor hand writing, difficulty in understanding etc.

Overall performance of the participants in their last examination was taken in the form of percentage/grades categories that acted as a standard format of evaluation in schools. 27% of the participants were in the category of grade B or 75%-84%.

The mean age of the participants was 9 years. The mean height was 4feet and 3 inches, SD 0.4. The mean weight of the participants was 30 kg, SD 7.6.

The mean education of the mothers of the participants was 13 years with the SD 2.4. The mean age of fathers of the participant was 41 years, SD 2.4. The mean education of the fathers is 14 years, SD 2.4. The mean per month income of the family of the participant was Rs. 62271 with SD Rs. 63520.0.

The information regarding the nutritional value of food consumed by the participants yielded significant insight. The mean of the category of the nutritional value of the food group (cereal group, dairy group, fruit group, dessert group and junk food group) consumed by the participants was 4.7, SD 3. The mean of the category of the nutritional value of the food group in lunch box is 4.4, SD 2.6. The main behavioral complaints about the participant reported by mothers were anger problem, hyperactivity and weeping in the morning time. The main behavioral complaints about the child as reported by teacher were talkative, carelessness and shy. The main academic complaints reported by teachers were slow hand writing, and poor grades.

The following grade categories and corresponding points were considered while examining the students' academic performance:

Grades	Percentage of marks in last exam	Points
A+	95%-100%	7
A	85%-94%	6
B	75%-84%	5
C	65%-74%	4
D	55%-64 %	3
E	45%-54%	2
U	Below 45%	1

The mean performance of the participants in mathematics falls in the category 5 which represents 75%-84% with SD 1.5. The mean performance of the participants in English falls in the category 4 with SD 1.6(N=356). The mean of the class participation is around 4 on a 5- point rating scale where 1 is unsatisfactory and 5 is satisfactory with SD 1.1, the maximum being 1 and the minimum being 5. The mean of the performance in the first period is 4 with SD 1.1. The participants attendance record was also taken from the class teacher .The mean attendance percentage was 91 % with SD 10.

This difference between the overall performances of the participants coming from three breakfasts categories was analyzed through analysis of variance (ANOVA).

Table No.2: Analysis of variance (ANOVA) of breakfast categories and overall academic performance

Variable and source	SS	df	MS	F	p
Between Groups	43.54	2	21.772	12.285	0.000*
Within Groups	634.456	358	1.772		
Total	678.000	360			

* F value significant at $p < 0.05$

Table No.5: Multiple comparisons of nutritious breakfast and academic performance

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	Post hoc
OAP	4.0	1.7	4.6	1.2	4.8	1.3	4.7	1.3	5.2	1.0	4.3	1.2	4.1	1.5	4.0	2.0	1<5

The finding of ANOVA reflect that there is a highly significant difference between breakfast categories and overall performance, $F = (2,358) = 12$, $p < 0.05$. This significant difference is further looked into by using Tuckey's post hoc analysis.

Table No.3: Multiple comparisons of breakfast categories and overall performance

	Regular break fast(3)		Irregular break fast(2)		No break fast(1)		Post hoc
	M	SD	M	SD	M	SD	
Overall performance	4.9	1.2	4.4	1.3	3.9	1.5	1<2<3

Table 4 presents the post hoc multiple analysis. The Tukey's post hoc multiple analysis output indicates that the difference between regular and no breakfast group is highly significant $p = 0.00$, $p < 0.05$. Whereas the difference between irregular and no breakfast group is also significant $p = 0.04$, $p < 0.05$.

The significant difference between the nutritional value of breakfast and the academic performance is seen by applying the Analysis of Variance (ANOVA).

Table No.4: Analysis of variance (ANOVA) of nutritious breakfast and academic performance

Variable and source	SS	Df	MS	F	p
Between Groups	28.411	7	4.059	2.248	0.03*
Within Groups	628.428	348	1.806		
Total	656.840	355			

* F value significant at $p < 0.05$

The findings of ANOVA show that there is a significant difference between nutritional value of breakfast and academic performance. The difference $F = (7,348) = 2.24$, $p < 0.05$ proves the hypothesis that there is a significant difference between the academic performance of children eating breakfast containing variety of nutritional substances. This significance of difference is further seen by using post hoc analysis.

OAP=overall academic performance No food group =(1) one food group =(2),two food groups=(3),three food group=(4),four food groups =(5),five food groups=(6),six food groups=(7), and seven food groups=(8). It can be seen that the performance of those having five nutritional groups is better than that of those did not take any food group, no breakfast.

DISCUSSION

The authenticity of the results increases when it is validated with literature related to it. In the current research academic performance of children who eat regular breakfast was higher than academic performance of children in no breakfast group. The findings of the present research find support from the investigations made in other parts of the world. Students who received nutrition, and better nutrition, performed better than those who missed many nutrients. When the relationship between nutritional status and performance in academic activities were assessed and it is seen that the children who eat nutritional breakfast perform well in academics. children who used cereal breakfast were more active mentally in the morning and the attention and memory of those children was also not declined.³The relation of nutritional value with the academics were also seen.¹⁴ Some researches also showed the link between quality of diet and its effects on the academics. The results of their findings stated that when the quality of food lowers down the performance on different assessment also decreases.¹⁵In India the work on the breakfast and its link with performance was conducted. According to their findings children who skip breakfast are also poor in total intake of other nutrients especially protein than children who take breakfast.¹⁶ One of the research findings on the breakfast type stated that the composition of breakfast matters a lot in the child's ability to perform. They found out that the children who consumed oat meal performed better on different task that involve cognitive functioning. Due to the difference in composition oatmeal consumed slowly and the energy level sustained which indirectly increased the performance level of children. By using different variety of foods the nutritional need of the child can be fulfilled.¹⁷Many research works are conducted on the types of breakfast and its positive influence on school going children. The breakfast which is rich in carbohydrate can positively influence the performance of children that involve mental activity at school.³ The effect of breakfast in nourished and under nourished children with relation to achievement was studied. According to the findings the nourished children scored high on arithmetic, reading and spelling as compared to undernourished children.¹⁸ The quality of food in the current research is measured through the number of food groups that are cereal group, dairy group, fruit group, dessert group and junk food group. It has been proved from different researches that every food has its unique make up of nutrients which make it important for diet.

CONCLUSION

The current study is one of its own kind in the field of Health Psychology in Pakistan. In this emerging field

very little work has been done for children's well being especially on nutritional health and breakfast habits. The present study will help the nutritionists, educationists, teachers, parents and health professional to work in new dimensions for the betterment of children.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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Risk Factors for Renal Dysfunction after Total Hip Joint Replacement in One Territory Care Hospital in Peshawar

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ABSTRACT

Objective: The objective of our study was to identify the possible risk factors for renal dysfunction after total hip joint replacement surgery.

Study Design: Observational cohort study

Place and Duration of Study: This study was conducted in Orthopedic Department of Lady Reading Hospital, Peshawar from March 2013 to February 2014.

Materials and Methods: A study was conducted among 212 consecutive primary hip joint replacements performed. According to the RIFLE criteria, increased postoperative serum creatinine was considered indicative of postoperative renal injury.

Results: Eighty-one patients (14.1 %) had significant moderate or severe postoperative renal dysfunction in which 4 patients (1.9 %) acquired severe and permanent renal impairment.

Conclusion: We identified advanced age, hypertension, general anesthesia, high ASA scores, low intra-operative systolic BP, and prophylactic dicloxacillin as significant risk factors. Smoking, diabetes mellitus, high BMI, gender, and duration of surgery were not identified as significant risk factors.

Key Words: Risk Factors, Renal Dysfunction, Hip Joint Replacement

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INTRODUCTION

Total hip joint replacement is indicated mainly for hip osteoarthritis, for complications after osteosynthesis of hip fractures, and for the treatment of femoral neck fractures in relatively young patients. Possible complications are deep venous thrombosis¹⁻³ infection⁴⁻⁶ dislocation of the hip prosthesis^{7,8} and increased creatinine levels, and impaired renal function⁹⁻¹¹ the latter may in turn increase mortality and morbidity among patients who are already affected by diseases such as diabetes mellitus, hypertension, heart disease, and obesity¹²⁻¹⁶. Increased hospital stay, morbidity, mortality, and increased cost may all be consequences of acute postoperative renal dysfunction. To date, preventative strategies are the only effective measures to reduce morbidity in cases of postoperative renal dysfunction. Therefore, in order to influence our guidelines, it is imperative to identify the risk factors of renal dysfunction after total hip joint replacement surgery. In our department, the protocol for elective total hip joint replacement surgery includes measuring serum creatinine; once preoperatively and three

consecutive days postoperatively. Increased postoperative serum creatinine was monitored and controlled daily until it decreased or the patient was referred to the nephrology department. During the first postoperative week, the highest serum creatinine was chosen as a sign for maximum renal injury. Dicloxacillin was the antibiotic of choice for prophylaxis and cefuroxime used as the alternative in cases of allergies to penicillin.

The aim of this study was to identify patients with renal injury after total hip joint replacement and to detect possible risk factors and their clinical relevance in our retrospective material of 212 consecutive total hip joint replacements. In recent years, a few studies identified renal impairment as a complication to be considered after major surgery¹⁷⁻²¹.

MATERIALS AND METHODS

This study was conducted at orthopedic department of Lady Reading Hospital, Peshawar from March 2013 to February 2014. Indications for surgery were primary osteoarthritis ($n=195$), femoral neck fractures, and complications after osteosynthesis of hip fractures ($n=17$). A total of 212 patients with a total of 212 hip joint replacements were included. Data was obtained from our computerized database and hospital charts.

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Charts were reviewed for at least 9 months after surgery. Out of the 212 total hip joint replacements, 82 had complete data sets matching our investigation criteria. The following variables were selected^{17,18}: age, sex, body mass index (BMI), hypertension, diabetes mellitus, smoking, American Society of Anesthesiologists (ASA) physical status, prophylactic antibiotics according to our protocol (one dose immediately preoperatively and three doses in the first postoperative day), duration of surgery, type of anesthesia, baseline systolic blood pressure (BP), baseline diastolic BP, intra-operative systolic BP, and intra-operative diastolic BP (lowest measured blood pressure intra-operatively).

RESULTS

During the study, 30 out of 212 patients had significant moderate or severe renal impairment (RIFLE ≥ 1.5) resulting in an overall incidence of 14.1 % Table 1. Seventeen patients (8.0 %) had RIFLE 1.5–2, 7 patients (3.3 %) had RIFLE 2–3, and 6 patients (2.8 %) had RIFLE ≥ 3 . Out of these 30 patients, 26 improved but 04 patients acquired severe and permanent renal impairment (i.e., in dialysis) with an incidence of 1.9 % Table 2. Three patients had postoperative serum creatinine above the defined failure limit (354 $\mu\text{mol/l}$). This was not correlated with a higher preoperative serum creatinine. The one patient with high preoperative serum creatinine was already above 200 $\mu\text{mol/l}$. The renal status of the 30 patients was observed through electronic charts for at least 9 months after surgery.

Table 3 reveals advanced age, hypertension, general anesthesia, high ASA scores, low intra-operative BP, and using prophylactic dicloxacillin as being significant risk factors for renal impairment, after total hip joint replacement on univariate analysis. Generalized multivariate modeling was performed using the relative change in serum creatinine as a dependent variable. It confirmed that advanced age, hypertension, general anesthesia, prophylactic dicloxacillin, low baseline systolic and diastolic BP, and having a hip fracture diagnosis were significant independent risk factors for a rise in serum creatinine (Table 3).

BMI, duration of surgery, gender, diabetes mellitus, and smoking were not considered significant risk factors.

Table No.1: Percentage of Renal Dysfunction after Total Hip Joint Replacement

Sr.No	Renal dysfunction	Patients	Percentage
1	Severe postoperative renal dysfunction	30	14.1
2	Percentage of renal dysfunction	04	1.9

Table No.2: Percentage RIFLE for Renal Dysfunction After Total Hip Joint Replacement

Sr.No	Patients	RIFLE	Percentage
1	17	1.5-2	8.01
2	07	2-3	3.31
3	06	73	2.8

Table 3: Significant and Non- Significant Risk Percentage of Renal Dysfunction After Total Hip Joint Replacement

Sr.No	Significant Factors	Non- Significant factor
1	Age	Smoking
2	Hypertension	Diabetes mellitus
3	General anesthesia	High BMI
4	High ASA scores	Gender
5	Low Intra-operative systolic BP	Duration of surgery
6	Prophylactic dicloxacillin	

DISCUSSION

Increased hospital stay, morbidity, mortality, and increased cost may all be consequences of acute postoperative renal dysfunction^{22,23}. To date, preventative strategies are the only effective measures to reduce morbidity in cases of postoperative renal dysfunction. Therefore, in order to influence our guidelines, it is imperative to identify the risk factors of renal dysfunction after total hip joint replacement surgery.

In spite of the retrospective design, data was complete for most patients;. However, an important limitation was the missing information on fluid input and output which would have potential influence on renal function. Unfortunately, these charts were unreliable and had frequent missing records of blood loss during surgery. Therefore, data regarding perioperative blood loss was not collected. None of our patients had received blood transfusions perioperatively, and very few patients received blood transfusion postoperatively (<1 %) indicating minimal blood loss during surgery. Excessive blood loss during surgery may lead to decreased intra-operative BP and renal blood flow predisposing the patients to pre-renal failure. Our study shows that a higher preoperative serum creatinine is not a predictor for either a higher postoperative serum creatinine above the limit of 355 $\mu\text{mol/l}$ or a higher relative change.

Our patients received prophylactic antibiotics in the form of either dicloxacillin or cefuroxime (. Those receiving the former had a significant increased risk of increased postoperative serum creatinine. Baily et al.²⁵, Solgaard et al.²⁶ and Isacson and Collert²⁷ developed the same conclusion in their respective studies. Dicloxacillin has been the local recommendation for many years due to the narrow bacterial spectrum

relevant to prevent infections with *Staphylococcus aureus*. In addition, dicloxacillin compared to cefuroxime is known to have a lower risk of complications concerning gastrointestinal problems and induction of bacterial resistance^{28, 29}.

The ASA score was an independent significant risk factor for the development of renal impairment, thus corresponding with the findings of Parvizi et al.³, Abelha et al.¹¹, Belmont et al.¹⁶, and Jafari et al.¹⁷

In our study, hypertensive disease (under treatment) had a significant increase in the risk for renal impairment as supported by Nergelius et al.¹⁰, Naik et al.²¹, and Weingarten et al.²⁴. In addition, patients with low baseline systolic and diastolic BP, before anesthesia induction, also had an increased risk for renal impairment. This may be due to a reduced capacity to tolerate an additional drop in BP during anesthesia induction.

Several authors^{3, 15–17, 24, 30} have indicated that high BMI was an independent risk factor after joint replacement surgery. Although our BMI range was 15 to 46, we could not confirm this finding.

Weingarten et al.²⁴ found that diabetes mellitus was independently associated with a high risk of developing acute kidney injury after total joint replacement, which was not the case in our study. However, Weingarten et al.²⁴ did not mention the actual diabetic disease control whereby our patients were meticulously controlled preoperatively.

Our study revealed a relatively high incidence of renal impairment (2.8 %) after primary total hip replacement compared to other studies^{3, 17, 24}. The retrospective study conducted by Jafari et al.¹⁷ showed an incidence of 0.55 % of acute renal failure or injury after joint arthroplasties (98 out of 17,938 joint arthroplasties including revision arthroplasties). Parvizi et al.³ had an incidence of 0.85 % of acute renal failure in their prospective study of 1636 primary hip and knee joint replacements. The incidence was higher (1.82 %) in the retrospective study conducted by Weingarten et al.²⁴ which included a cohort of 917 patients in which 167 patients showed acute kidney injury postoperatively. Nykøbing Falster Hospital serves an area of Denmark with a relatively older population and relatively low social status which would explain the higher risk of renal impairment. Therefore, it is recommended that further studies be conducted and include controlled randomization to elucidate causal factors concerning postoperative renal impairment, after major surgery.

CONCLUSION

Our study, in accordance with other studies, confirms the increased risk of renal injury after total hip joint replacement surgery. These findings may warrant a change in the protocol for informed consent as well as preoperative preparation protocols. Patients intended for total hip joint replacement may have to be informed

preoperatively of any increased risk of renal impairment. High-risk patients (advanced age, hypertensive disease, and high ASA scores) should be identified early for further optimization pre- and intra-operatively.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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