Original Article

Hep. B&C in Oral Surgery

Prevalence of Hepatitis B and C in Oral & Maxillofacial Surgery reported at Liaquat University Hospital Hyderabad

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ABSTRACT

Objective: To analyze the prevalence of hepatitis B virus (HBV) and hepatitis C virus (HCV) carriers in oral and maxillofacial patients.

Study Design: Experimental study.

Place and Duration of Study: This study was carried out at Oral & Maxillofacial Surgery Department, Liaquat University Hospital Hyderabad from 1st September 2011 to 31st August 2013.

Materials and Methods: Data of 520 patients who were hospitalized at Liaquat University Hospital for treatment of maxillofacial fractures. Study design was descriptive/cross sectional study. All patients were treated both under general anesthesia as well as local anesthesia, sedation. Our hospital is tertiary referral center for Sindh province. Patients who were hospitalized at Oral & Maxillofacial Surgery Department during the study period for any category of maxillofacial surgery were screened before managing.

Results: 60% were males and 40% were females with age from 15-80 years. HBV was positive 15% in patients and HCV was positive in 11% of patients.

Conclusion: The high prevalence of HBV and HCV in maxillofacial surgical patients recommended a regular test for HBV and anti-HCV for every one patient, to prevent spread of HBV and HCV among staff, patient to patient and oral surgeon.

Key Word: Maxillofacial, HBV, HCV

INTRODUCTION

Viral hepatitis is a severe worldwide community healthiness trouble. At current, six diverse types of hepatitis virus have been recognized and called as hepatitis A, B, C, D and E[1]. It is predictable that three to four million persons are infected each year. Pakistan is the intermediate HBV prevalence zone with carrier rate of 3-4% where both HBV and HCV are emerging as a major health problem[2], more than 2000 million populations global and 350 million people are carrier of the virus by the presence of HBSAG surface antigen[2]. 130 million are chronic HCV carriers and are at risk of heaptocellular carcinoma[3]. Examination of maxillofacial surgical patients for hepatitis B and C undergo maxillofacial surgery is regular set of rules at maxillofacial department civil hospital Hyderabad. Universal precautions against HBV and HCV are not in use only when a known positive case operated. Patient under departing in Oral & Maxillofacial Surgery, must use standard practice of cross infection control to stop extend of infectivity to community.

This study was carried out to see the occurrence of HBV and HCV in oral and maxillofacial surgical patients before operating on them.

MATERIALS AND METHODS

We carried out this study Descriptive / cross-sectional Oral and maxillofacial surgery department of this university deals in all Indoor admitted of maxillofacial surgical patients. Over a period of two year starting from 1st Sept, 2009 to 31st Aug 2011. A total of 520 patients were admitted and treated both under general anesthesia as well as local anesthesia, sedation. All patients screened for HBsAg and anti- HCV to notice the carrier standing of the patients earlier than surgery. Every single one having the HBV and HCV positive patients were referred to general medicine department to consult physician liver function tests (L F T) SGOT SGPT, ALT and BT. CT PT, APTT before treatment subject to fitness general anesthesia and under local anesthesia for any type of minor or major surgical procedure. All relative information was collected through annual admission register and patient treatment files and noted on predesigned proforma. Data was analyzed through SPSS-17.

RESULTS

A total number of 520 patients were screened for HBsAg and anti-HCV. 315(60%) were males and 205(40%) were females. The age was from 15 to 80 years. 139(26%) were positive for HBsAg and HCV. HBsAg were positive in 79(15%) patients. Out of them

49(62%) were males and 30(35%) were females. HCV was positive in 60(11%) patients, 40(66%) males and 20(33%) females. Total cases 56(40%) patients had prior history of surgical procedures as indoor or outdoor case. Only 23(4%) patients knew about their hepatitis status, while a bulk of patients 106(76%) were not known of their hepatitis position before they admitted to civil hospital Hyderabad oral maxillofacial department and they were diagnosed on screening by ELISA method. All the recently diagnosed cases of hepatitis B and C were also referred to Medicine Department of Liaquat University Hospital for further Evaluation.

Table No.1:Prevalence of Hepatitis B virus n=520 patient

Hepatitis B Virus	No of Patient			
	Male	Female	Total	%age
Present	49	30	79	15%
Absent	266	175	441	84%

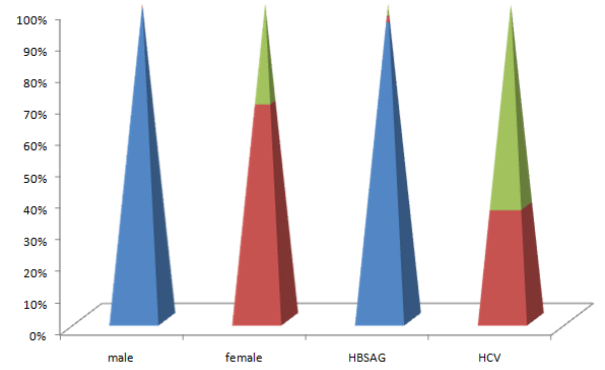

Figure No.1: Different Patients Ratio

Table No.2: Prevalence of Hepatitis C Virus n=520 patients

Hepatitis C Virus	No of Patient			
	Male	Female	Total	%age
Present	40	2O	60	11%
Absent	34I	321	381	73%

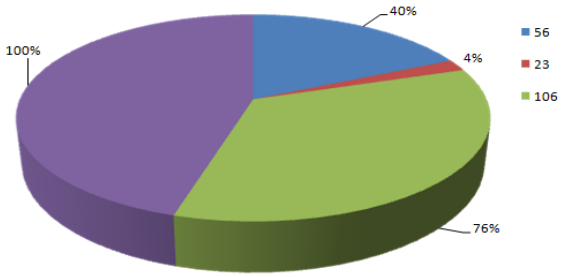

Figure No.2: Distribution of patient previous surgical procedure.

DISCUSSION

Viral hepatitis has been diagnosed by coincidence in hospital based admitted impatient individuals who has no history and symptom of hepatitis[3,4].

Hepatitis B (HBV) and C (HCV) viral infection are spread all the way during blood and body secretions which break during the human body from side to side a contravene in the skin, mucosa or vein. The most common routes of conduction of HCV in urbanized country take account of intravenous drug use, blood transfusions, haemodialysis, needle-stick injuries, tattooing, sexual intercourse and peri-natal infections[5,6.13].

In mounting countries, beneficial injections from reuse needles and syringe and indecent sterilization of all-encompassing medical procedure is the major means of transportation for spread of blood borne organisms together with hepatitis B virus HBV, HCV and HIV. And Overuse and unsafe injection[7,8.14].

Hospital based Maxillofacial surgery are at high jeopardy of getting the hepatitis B and C virus, since they have extended surgical operation uncovered to the virus whereas, from perforation of glove, wire stick injury, accidental pricks. Low quality glove and extend used of glove more than one hour in surgical field [9.15.16]. The occurrence of hepatitis in exacting is established to be elevated in public sector hospital due to over load patient admission[10]. A study carried out by Mujeeb et al[10.17.18] showed the frequency of HBsAg 7% in doctors, 17% among dentists and 20% in sweepers working in the hospitals. On the other last part , there is accepting of hepatitis B and C infection and carelessness while dealing operating and proper dispose off material among the health care profession.

In this study the frequency of HBV infection was to be 11% compared to 6.5% diagnosed in a tertiary care hospital of Karachi in the surgical patients[5.19.20]. A study carried out in the surgical out patients department in 2006 Fauji Foundation Hospital Rawalpindi established 2.28% prevalence of hepatitis B and 7.56%[11]. At the other hand , has been a prove that known patient at high risk spreading for hepatitis B and C among clinical staff and society while dealing and operating patient[11,12.21.22]. What measures should to be taken to stop spread infection .like proper handling of instrument and glove should be used to deal any patient. And clinical staff must be trained dispose off material. Yet, the question of whether and how contaminated individuals should be arrangement out .to prevent spread of Infection and diagnosed and refer to proper treatment protocol.

CONCLUSION

The high prevalence of hepatitis B and C found in maxillofacial surgical patient recommend each and every patient assume having hepatitis and should take routine screening of HBsAg and anti-HCV .prior to any surgical procedure. This will allow to implement of universal precautions to transmission of infection HBSAg. HCV both, patient to clinical staff & patient to surgeon as well as to public and society.

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