Original Article

Prevalence of Anemia in Pregnant Women in the Pandemic of Covid-19

Anemia in Pregnant in Covid-19

Urfa Taj[1], Mahwish Pervaiz[1], Sumreen Shabbir[2], Shazia Munir[2], Shazia Jabeen[2] and Faheema Rasul[2]

ABSTRACT

Objective: To study the Prevalence of Anemia in pregnant women in the pandemic of COVID-19.
Study Design: Prospective study
Place and Duration of Study: This study was conducted at the Allama Iqbal Memorial Teaching Hospital Sialkot and Sardar Begum Teaching Hospital Sialkot department of Obstetrics and Gynecology during March 2019 to September 2020.
Materials and Methods: Two hundred pregnant women were selected for this study. The history and examination of each woman was conducted and blood was taken for complete blood count (CBC). The informed written consent was taken before examination and sample collection of the pregnant women. The Ethical Committee permission of was considered before collecting the data and get publishing in Medical Journal. The data was analyzed for results by SPSS version 20.
Results: The prevalence of Anemia in pregnant women during COVID-19 was maximum 60(30%) in age group 20-25 years and was minimum 18(09%) in age group 41-44 years. The prevalence of Anemia in pregnant women during COVID-19 was maximum in lower class75 (37.50% and minimum 58(29%) in middle class
The prevalence of Anemia in pregnant women during COVID-19 was maximum 85(42.50%) of Hemoglobin 6-7gm/dl and was minimum 15(07.50%) of Hemoglobin 12-13gm/dl.
Conclusion: It was concluded from the study was that Anemia was prevalent in pregnant women because most of the pregnant women did not come to hospital for Ante natal care. Therefore, iron advised on diet and iron supplement was not received.
Key Words: COVID-19, Prevalence, Anemia and pregnant women

Citation of article: Taj U, Pervaiz M, Shabbir S, Munir S, Jabeen S, Rasul F. Prevalence of Anemia in Pregnant Women in the Pandemic of Covid-19. Med Forum 2021;32(1):115-117.

INTRODUCTION

Since the first report (December Two thousand nineteen) of the covid-19 disease 2019 caused by severe acute lungs syndrome covid-19, the number of definite cases and associated death and diseases have increased rapidly.[1,2] Pregnant ladies are thought a high danger group because of related about the effect of corona virus 19 on them during and after pregnancy, and on their newborn.[3]

To provide protection to delivered mothers and their neonates,the key factors to ponder about are,risk factors leading to covid-19, Clinical presentation and results of therapy during days of infection.[4]

Lack enough healthy red blood cells (Anemia) is one of the most common food necessary for health and growth deficiency disorganization affecting the pregnant women; the incidence in developed countries is fourteen percent, in developing countries fifty one percent, and in India, it varies from sixty five percent to seventy five percent.[1,2, 5-10]

[1.] Department of Obstetrics and Gynecology, Allama Iqbal Memorial Teaching Hospital Sialkot.
[2.] Department of Obstetrics and Gynecology, Sardar Begum Teaching Hospital Sialkot.

Correspondence: Dr. Urfa Taj, Assistant Professor Obstetrics & Gynecology, Allama Iqbal Memorial Teaching Hospital Sialkot.
Contact No: 03328677543
Email: urfataj@gmail.com

Received: October, 2020
Accepted: December, 2020
Printed: January, 2021

MATERIALS AND METHODS

Two hundred pregnant women were selected for this study. The history examination of each woman was conducted and blood was taken for CBC. The informed written consent was taken before examination and sample collection of the pregnant women. The permission of Ethical Committee was taken before collecting the data and gets publishing in Medical Journal. The data was analyzed for results by SPSS version 20.

RESULTS

The prevalence of Anemia in pregnant women during COVID-19 was maximum 60(30%) in age group 20-25 years and was minimum 18(09%) in age group 41-44 years as shown in table 1.

Table No.1: Age distribution

Sr #	Age (years)	Number of cases	Percentage %
1	20-25	60	30 %
2	26-30	55	27.50%
3	31-35	45	22.50%
4	36-40	22	11.00%
5	41-44	18	09%
Total		200	100%

The prevalence of Anemia in pregnant women during COVID-19 was maximum in lower class75 (37.50% and minimum 58(29%) in middle class as shown in table no 2.

1 Middle class
2 Working class
3 Lower class

Table No.2: Socio Economic status distribution

Sr #	Socio Economic status	Number of cases	age %
1	High gentry	58	29%
2	Middle class	67	33.50%
3	Poor class	75	37.50%
Total		200	100%

The prevalence of Anemia in pregnant women during COVID-19 was maximum 85(42.50%) of Hemoglobin 6-7gm/dl and was minimum 15(07.50%) of Hemoglobin 12-13gm/dl as shown in table no 3.

Table No.3: Hemoglobin distribution in pregnant women during COVID-19

Sr #	Hemoglobin (gm/dl) distribution	Number of cases	age %
1	6-7	85	42.50%
2	8-9	75	37.50%
3	10-11	25	12.50%
4	12-13	15	07.50%
Total		200	100%

DISCUSSION

However, lower incidence was noted from Nepal (forty two point five percent) and Haryana (fifty one percent) and National Family Health Survey-2 and 3 (forty nine point seven percent).

Lack enough healthy red blood cells between the patients in the present study was low (two point three percent) which was coincided to work by Kapil and Sareen (one point six percent) and National Family Health Survey (two point five percent).[13] Whereas other works showed higher incidence; Totega (13.1%), Agarwal et al. (9.2%), Vivek et al. (7%), and Gautam et al.[4,7,11,12]

Maternal anemia is considered as risk factor for both the mothers and fetus. Available results from India shows that mother disease rates are higher in anesmic ladies.[2,9,15] In the recent work, about thirty five point six percent of the ladies had mother and fetal disease, Lower segment Cesarian section.[10]

In the recent work, around twenty five percent of ladies delivered low birth new born; the majority of them (fifty seven percent) were among ladies with Lack enough healthy red blood cells.

Whereas Marahatta in Nepal noted three percent before time deliveries in anemic women.[1]

In the present study, gravida, education of pregnant women, and bad obstetric history were significantly associated with anemia. A study by Chowdhury et al. observed an insignificant association between anemia and gravida.[16,17]

In a similar work done by Obse et al. in Ethiopia parity > 5 has a significant association with anemia.[18,19, 20]

Lack enough healthy red blood cells (Anemia) is highly incident worldwide, too large or too small harming babies and ladies of generative age 21. Decreased iron stores for the baby, which may lead to impaired development. Iron deficiency is considered the most common cause of anemia, but there are other nutritional and non-nutritional causes. The anemia prevalence for the population is used to classify the public health significance of the problem.

CONCLUSION

It was concluded from the study was that Anemia was prevalent in pregnant women because most of the pregnant women did not come to hospital for Ante natal care. Therefore, iron advised on diet and iron supplement was not received.

Author's Contribution:

Concept & Design of Study:	Urfa Taj
Drafting:	Mahwish Pervaiz, Sumreen Shabbir
Data Analysis:	Shazia Munir, Shazia Jabeen, Faheema Rasul
Revisiting Critically:	Urfa Taj, Mahwish Pervaiz
Final Approval of version:	Urfa Taj

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

REFERENCES

1. Marahatta R. Study of anaemia in pregnancy and its outcome in Nepal medical college teaching hospital, Kathmandu, Nepal. Nepal Med Coll J 2007; 9:270–4
2. Kalaivani K. Prevalence and consequences of anaemia in pregnancy. Ind J Med Res 2009; 130:627–33.
3. Mbule MA, Byaruhanga YB, Kabahenda M, Lubowa A. Determinants of anaemia among pregnant women in rural Uganda. Rural Remote Health 2013; 13:2259.

4. Viveki RG, Halappanavar AB, Viveki PR, Halki SB, Maled VS. Prevalence of anaemia and its epidemiological determinants in pregnant women. Al Ameen J Med Sci 2012; 5:216–23.
5. Ahmad N. The prevalence of anaemia and associated factors in rural Indian community. Australas Med J 2010;1:276–80.
6. Sangeetha VB, Pushpalatha S. Severe maternal anemia and neonatal outcome. Sch J Appl Med Sci 2014;2:303–9.
7. Gautam VP, Bansal Y, Taneja DK, Saha R, Shah B, Marg Z, et al. Prevalence of anaemia amongst pregnant women and its socio-demographic associates in a rural area of Delhi. IJCM 2002;27:157–60.
8. Iyengar K. Early postpartum maternal morbidity among rural women of Rajasthan, India: A community-based study. J Health Popul Nutr 2012;30:213–25.
9. Ivan EA, Mangaiarkkarasi A. Evaluation of anaemia in booked antenatal mothers during the last trimester. J Clin Diagn Res 2013;7:2487–90.
10. Allen LH. Anaemia and iron deficiency: Effects on pregnancy outcome. Am J Clin Nutr 2000;7: 1280–4.
11. Agarwal KN, Agarwal DK, Sharma A, Sharma K, Prasad K, Kalita MC, et al. Prevalence of anaemia in pregnant & lactating women in India. Ind J Med Res 2006; 124:173–84
12. Totega GS. Prevalence of anaemia among pregnant women and adolescent girls in 16 districts of India. Food Nut Bull 2006; 27:311–5.
13. Kapil U, Sareen N. Prevalence of anemia amongst overweight and obese children in NCT of Delhi. IJCH 2014; 26:295–7.
14. Vemulapalli B, Rao KK. Prevalence of anaemia among pregnant women of rural community in Vizianagaram, North Coastal Andhra Pradesh, India. Asian J Med Sci 2013;5:21–5.
15. Singh R, Chauhan R, Nandan D, Singh H, Gupata SC, Bhatnagar M. Morbidity profile of women during pregnancy: A hospital record based study in Western UP. IJCH 2012;24:342–6.
16. Chowdhury HA, Ahmed KR, Jebunessa F, Akter J, Hossain S, Shahjahan M. Factors associated with maternal anaemia among pregnant women in Dhaka city. BMC Women Health 2015;15:77.
17. Singh R, Singh AK, Gupta SC, Singh HK. Correlates of anaemia in pregnant women. Ind J Community Health 2015;27:351–5.
18. Obse N, Mossie A, Gobena T. Magnitude of anaemia and associated risk factors among pregnant women attending antenatal care in Shalla Woreda, West Arsi Zone, Oromia Region, Ethiopia. Ethiop J Health Sci 2013;23:165–73.
19. Bekele A, Tilahun M, Mekuria A. Prevalence of anemia and its associated factors among pregnant women attending antenatal care in health institutions of Arba Minch town, Gamo Gofa Zone, Ethiopia: A Cross-sectional study. Anemia 2016;2016:1073192.
20. Nair M, Choudhury MK, Choudhury SS, Kakoty SD, Sarma UC, Webster P, et al. Association between maternal anaemia and pregnancy outcomes: A cohort study in Assam, India. BMJ Glob Health 2016;1:e000026.
21. Huang C, Wang Y, Li X, et al Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet 2020;395:497-506.