PREVALENCE OF ANEMIA IN PREGNANCY IN A DEFINED URBAN COMMUNITY OF PESHAWAR

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ABSTRACT

Objectives: To determine the prevalence of anemia during pregnancy in a defined urban population of Peshawar community and major risk factors for developing it.

Methodology: This was a prospective, observational study conducted in the Maternity hospital Hasthnagri (Peshawar) over a period of three months from august 2012 to october 2012 and 1000 pregnant women were subjected for investigations. A blood sample was taken on routine antenatal check up to determine hemoglobin levels. A detailed account on parity, dietary habits, socio- economic conditions and hygiene was made through simple structured proforma for data collection.

Results: According to WHO anemia is defined as hemoglobin <11.0g/dl. This was found in 99% of the subjected population and out of these mild cases were 3% (hemoglobin 9.0g/dl to 10.9g/dl) and surprisingly moderate anemia (hemoglobin level 7.0g/dl to 8.9g/dl) was 96% and only 0.1% was severely anemic. Risk factors have been assessed by questionnaire analysis and it was found 68%women with moderate anemia has history of malaria, 44%had history of worm infestation and 50% had poor dietary habits and hygiene. Moderate anemia was also found to be high in women with multiparity and no child spacing.

Conclusion: Prevalence of anemia is very high in urban population of Peshawar. Multiparity, poor socioeconomic conditions and illiteracy are major contributing factors.

Key words: Anemia, urban community.

INTRODUCTION

Anemia is global health problem affecting both developing and developed countries and approximatelty[1]. 1.3 billion individuals suffer from it. In developing countries almost two third of the pregnant women are affected and as a result of this high prevalence there is increased mortality and morbidity contributing up to 20% of maternal deaths[2].

This study was conducted in the maternity hospital of Hasthnagri located in the center of the city area and this hospital enrolls mainly pregnant women in the primary care. While working as a consultant gynecologist it was really very surprising that every other Patient was not only anemic and contrary to the prevalence of mild anemia as compared to the other parts of the country moderate anemia was high[3]. So I decided to conduct a study on these pregnant women to find out the prevalence in this area of KPK.

The common presentation of patients with anemia was tiredness, palpitations, weakness, breathlessness, poor appetite and lack of sleep. Pregnancy is a condition in which all this can happen even without anemia so co-existence of this condition worsen the problem and affect the ability of the woman to resist the infection and stress as well as her fetus is also at risk of low oxygen availability and poor development[4].

Most common type of anemia is acquired secondary to nutritional deficiency of iron. Low availability, poor absorption and depleted iron reserves because of repeated childbirths and multiparity are the main contributing factors. This chronic deficiency of iron produces an illhealth, which increases the chances of preterm delivery and increased risk of anemia and infection in young children. Other contributing factors are poor sanitation and hygiene, which increase the chance of worm infestation, and this is a coexistent factor with iron deficiency increasing the severity of problem. Malaria is another infection contributing to the anemia[5,6].

METHODOLOGY

This was a prospective, observational study of 1000 pregnant women conducted over a period of three months from (1st August 2013 to 1st October 2013) at Government maternity hospital Hasthnagri.

An inclusion criterion was all the pregnant women irrespective of period of gestation were included, using non-probability convenience sampling technique. Hereditary anemia and multiple pregnancies were excluded. A blood sample of (3ml) was taken at the

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time of booking and hemoglobin estimation was done by Sahlis method. I have already classified anemia according to WHO classification. Any woman whose hemoglobin was less than (11g/dl) was included with singleton pregnancy.

Data was collected by a structured proforma in which all the particulars were included and questions were included specifically to assess the risk factors for developing the anemia. In addition to hemoglobin estimation blood count, peripheral film, red blood cell indices and serum ferritin done to evaluate type and severity of anemia. Electrophoresis was done where required.

RESULTS

In this study total no of 1000 patients were studied for anemiawith single pregnancy. The variables, which are tested for the study, are age and demographic data collected by questionnaire proforma.

DISCUSSION

Anemia in pregnancy is an important cause of maternal mortality and morbidity, which is preventable. My aim of this study was to find the prevalence of Anemia particularly in KPK and in an urban area of Peshawar city. A lot of work has been done in other parts of the country and my results were surprisingly showing very high prevalence of moderate anemia[7,8].

A lot of studies shown iron deficiency anemia as the leading cause and so was found in my study and despite the fact that such a lot number of hematanics are available and so much work has been done to improve the health of pregnant women anemia has got such a high prevalence almost 90-95%.

This high prevalence of anemia is a contributing factor for high maternal mortality and morbidity. Another important factor that is putting the women at high risk of developing this condition was multiparity and almost 60 %of women were multiparous with no child spacing at all[9,10]. Poor nutrition because of poor socio economic condition was another very important factor.

One of the important observation of my study was the education status of the woman and almost 76.6% of the woman were not educated and this factor was directly related to their high parity no family planning and no antenatal checkups. Almost 67% of the women presented first time during the third trimester of the pregnancy with moderate anemia which has already compromised the health of the fetus leading to low birth weight and IUGR and puts the woman at risk of PROM, preterm labor and increased perinatal morbidity and mortality[11,12].

Table 1: Age groups of the women

Age years	Number of patients (n)	Percentage%
14-19	197	19.70%
20-29	553	55.30%
30-40	250	25.00%

Table 2: Type of Anemia

Severity of anemia	HB % (WHO criteria)	Number of patients	Percentage%
Mild	>10gm%	2	0.20%
Moderate	7-10gm%	985	98.50%
Severe	<7gm%	3	0.30%

CONCLUSION

Anemia is the commonest medical disorder in pregnancy and severe anemia is directly or indirectly responsible for the high maternal and perinatal mortality and morbidity in KPK. Among so many other causes educational status and poor socioeconomic conditions play the main role. So it is important to increase the public awareness and effort should be made at the higher level to improve the socioeconomic conditions and literacy rate of the women to deal with this persistent problem.

Major and effective steps should be taken at the community level to improve the antenatal care as well as improving the compliance of the woman to seek the provided services. Now this is the time to improve the health care policy as well as reform the health care system so that this high prevalence of anemia can be reduced and factors contributing to this should be monitored.

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