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MATERNAL AND FETAL OUTCOME DUE TO ANEMIA. A RETROSPECTIVE ANALYSIS AT A TERTIARY CARE HOSPITAL IN SIALKOT

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Abstract:

Objective: *The aim of this research is to conclude the rate of deficiency of red blood cells in the women having pregnancy and its effectiveness on the mortality and morbidity of unborn baby and mother.*

Methodology: *The method of this research is retrospective. Five hundred pregnant women attending the Out Patient Department of gynaecology in tertiary care hospital in Sialkot The research was completed in the duration of one year from January 2017 to December 2017. The patients were randomly selected. The gestational age was not preferred during the selection of the participants. A special organized form was used for the collection of data. Blood chemistry panel test was carried out and the patients found with anaemia were chosen for further research.*

Results: *Five hundred women having pregnancy randomly selected were the participants of this research work. Three hundred and seventy-five women were discovered with anaemia. The severity and cause of occurrence were different in the participants. Twenty percent patients were in their first three months of pregnancy period, about twenty-six percent patients were in their second trimester and more than fifty-four percent patients were in their last three months of pregnancy period. A large number of the patients were found with had moderate anaemia and their percentage was 52%. Thirty-six percent patients were found with mild anaemia. Anaemia of serious nature was found in twelve percent patients. The delivery was occurred before time in 9% of cases and the weight of about more than twelve percent new born babies was less than the normal babies. The occurrence of mortality rate in prenatal was more than two percent. Two women had to suffer an instance of sudden interruption while PPH (postpartum haemorrhage) was occurred in fifteen cases.*

Conclusions: *During pregnancy, women have to face a high occurrence of anaemia especially during the last three months of the pregnancy period. It affects the easy delivery and complicates the matter.*

Key Words: *Pregnancy, Anaemia, Mortality, Morbidity, Abruption, Moderate, Mild, Trimester.*

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INTRODUCTION:

Different women have to suffer anaemia due to iron deficiency in the start of the pregnancy period and this problem is increased with the physical alters of haem dilution which begins in the first three months of the pregnancy period and remains up to the thirty-two weeks of pregnancy and so on. World Health Organization has described the standard for the discovery of anaemia during pregnancy. This standard describes that the level of haemoglobin eleven grams per decilitres or less indicates the presence of anaemia. The most common cause of this disease is iron deficiency while the deficiency of folic acid, deficiency of B12 deficiency and BTT (beta thalassemia trait) are some other participating factors in this disease. A complete detail of the blood with definite values and red blood cells morphology in addition serum ability of iron binding and some other related tests are required for the complete descriptive assessment of the disease.

The poor nutrition and improper medications are vital factors which required necessary highlighting. Abnormally heavy or prolonged menstruation, less duration between child births, delivering of more than one child and the loss of blood during pregnancy and matter of child birth need severe concentration. Anaemia at the time of pregnancy period is an acknowledged and significant danger factor for both baby and mother and it is also linked with many complications [1, 2]. It is a main problem of health in the countries which are under development and high rate of complications are the result of this disease [3, 4]. The anaemia has resulted in many extreme consequences on mothers as signs of cardiovascular diseases, physical impairment, disturbed mental problem and abruption [1]. MHA (microcytic hypochromic anaemia) is well recorded in Pakistan as well as rest of the world [5]. There is an inconsistent relation between the abnormal deliveries and anaemia. Some research works have proved that this disease anaemia is closely linked with the dangers of abnormal birth outcomes [6-11] but some research work are against this data [12-15].

METHODOLOGY:

The participants of this study were 500 females having pregnancy who were randomly chosen from the OPD of the hospital. The duration of this research work was complete in one year from January 2017 to December 2017. The gestation age was not considered during the selection of the participants of this study. The level of haemoglobin was used for the discovery of anaemia; the cut off level was eleven grams per decilitres, peripheral film & blood indices. Anaemia was declared to be mild if the level of haemoglobin was greater than ten grams per decilitres, it was declared moderate if the level of haemoglobin was found between seven to ten grams per decilitres and severe was declared when level of haemoglobin was found less than seven grams per decilitres. The information about the age, gestation period, parity and medical signs of disease were gathered from the sufferers. The health of unborn child was evaluated medically with the help of ultrasound. The total weeks at the time of child birth and the weight of the new born baby was documented. Normal frequencies were utilized for the analysis of statistical data.

RESULTS:

Out of one thousand and forty-three pregnant women only five hundred females with pregnancy were chosen randomly in the duration of this research work because most of the patients were irregular in their treatment and follow ups. Twenty percent pregnant females were found in their first three months of the pregnancy period and the occurrence of this disease was found high as the period of pregnancy increased and about twenty-six percent were found in their phase of second trimester and 54.2% pregnant females were found in their last three months of the pregnancy period. The occurrence of this disease was found high in the females who were pregnant with five or more children. A large quantity of the females was suffering of moderate anaemia while thirty-six percent females were suffering of mild anaemia. Anaemia of severe nature was found in twelve percent cases. Eight percent pregnant females had to give birth before the completion of the pregnancy tenure while 12.5% new born babies were found with low body weight. The range of the weight of the new born babies was from 1.5kg to 2.5 kg.

Prenatal mortality occurrence rate was about 2.1%. Abruption was found in only two cases while PPH was the cause of suffering in four percent pregnant females as mentioned in Table-1.

Table: I Percentage of babies born with low birth weight

S.No	Weight in kg	No of patients(%)
1	<1.5	17(4.5)
2	1.5-2.5	30(8.0)
3	Total	47(12.5)

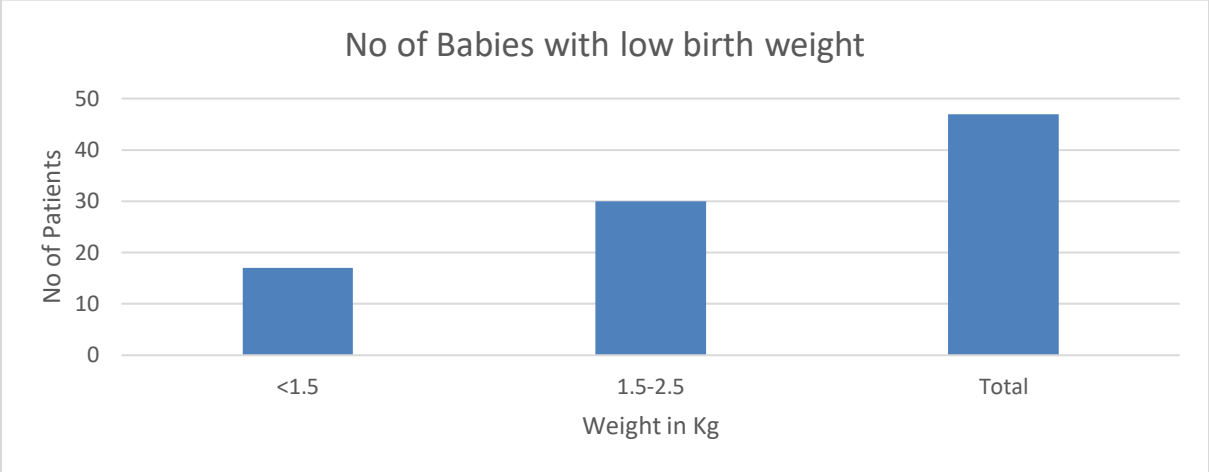


Table-2 describes the number of females suffering of anaemia in various trimesters.

Table II Number of anaemic women in different trimester		
S. No	Trimester	No. of patients (%)
1	1st	75(20)
2	2nd	97(25.8)
3	3rd	203(54.2)
4	Total	375(100%)

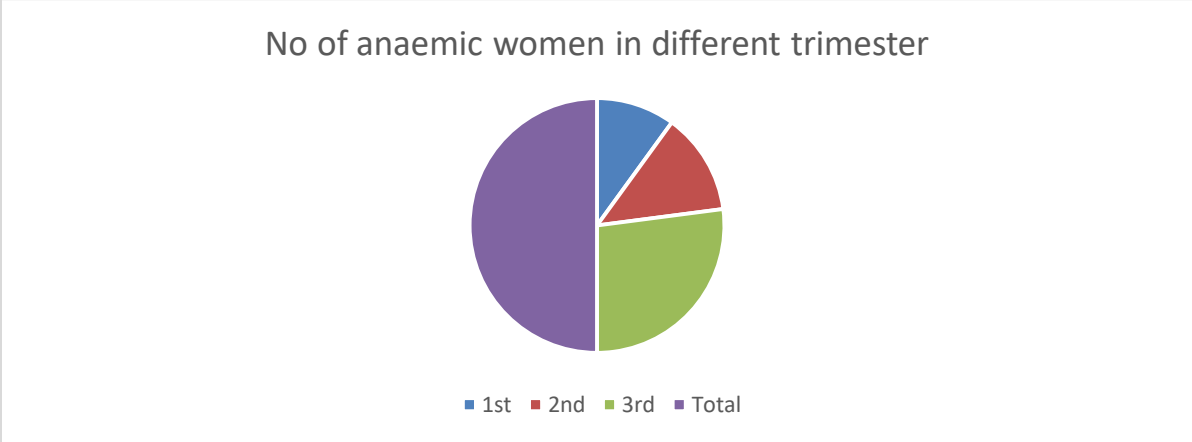
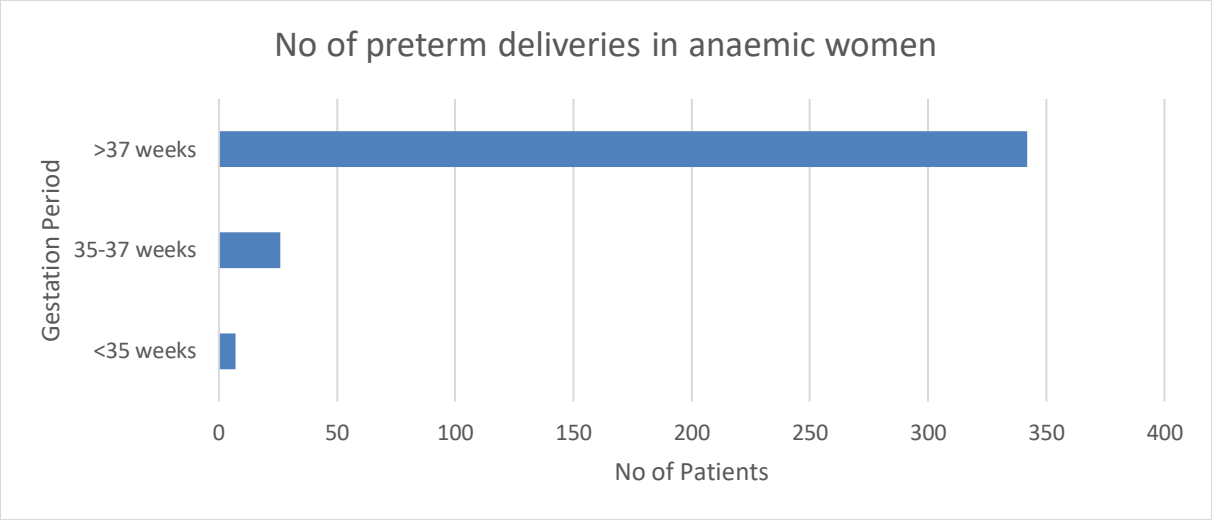


Table-3 provides the complete description regarding the quantity of the women suffering of anaemia whose deliveries were occurred before the completion of proper duration.

Table III Number of preterm deliveries in anaemic women		
S. No	Duration of gestation	No. of Patients(%)
1	<35 weeks	7(1.9)
2	35-37 weeks	26(6.93)
3	>37 weeks	342(91.2)



DISCUSSION:

Anaemia during pregnancy period is very vital and easily preventable reason which is responsible of severe complications. Seventy-five percent occurrence of anaemia is observed in this research work which is too much high. Same results were concluded from another research work 16]. Only fifteen percent pregnant anaemic females were found in the developed countries while the occurrence of this disease is from thirty-five to seventy-five percent in the countries which are under development [17]. Anaemia due to the lack of iron is highly occurring in Pakistan as concluded by many research works [5, 18]. A research work carried out in Karachi proved the occurrence of lack in iron amount as fifty percent [18]. Research from other countries as India and Africa also reported the same rate of the iron deficiency [19]. The high rate of occurrence of anaemia during the last three months of the pregnancy period is proved. Most of the participants were from poor social class.

This research work proved that the occurrence of anaemia was increasing as the period of the pregnancy was progressing. Its occurrence was high during the last trimester with the least haemoglobin amount. Majority of our patients were found with moderate anaemia. Same results were concluded by a research work carried out in Multan; which discovered that the occurrence of moderate anaemia was forty-eight percent [5]. Ninety percent pregnant women were found with mild anaemia and no case of severe anaemia was observed in another research work [20]. In this research work, the low weight of new born baby was observed in thirteen percent cases and delivery before the complete duration of the pregnancy period was observed in nine percent cases. This result is very much similar to the outcomes of many other studies [21, 22].

Many research works state that more than eighty percent anaemia is caused by deficiency of iron [23, 24, 25]. Klebano [26] concluded the reasons of the pre duration delivery during the second three-month period of the pregnancy in a research carried out in California. Another research work carried out in pregnant women from Camden & New Jersey showed that the lack of iron is the only main cause of anaemia [27]. The harmful effects of anaemia are not immediately visible in the case of pregnant females suffering of mild and moderate anaemia. This disease may result in complications of speech leaning and attitude abnormalities in the children. Still birth and extreme labour pain are the results of the serious nature anaemia.

CONCLUSIONS:

High rate of occurrence is present in the last three months of the pregnancy period with affect the health of mother as well as fetal and also complicates the process of delivery. This disease should be treated and prevented in all the pregnant females including the young ones to escape from the unwanted results of this terrible disease and its outcomes.

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