Assessment of Anemia in Pregnant Mothers Attending in Antenatal Clinic, TUTH

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Abstract

This descriptive cross-sectional study was carried out to identify the anemia in pregnant women on the basis of Hb % level who were attending antenatal clinic in TUTH.A total of 687 pregnant mothers were selected by using non probability purposive sampling technique in 2068 Kartic to 2068 Poush.Data was collected through analysis record of antenatal card. The obtained data was analyzed by using descriptive (frequency and percentage) statistics.

The findings of the study revealed that 46.7% pregnant women belong to 21-25 yrs age group. Majority (58.5%) pregnant women were primi and 16.8% pregnant women had moderate anemia(7-11gm Hb level).37.7% pregnant women were term pregnancy. Likewise 11.2% primi gravid mothers had moderate anemia and only 5.6% multi gravid mothers. It shows that primi gravid mothers were higher prevalence of anemia than multi gravid.

The study findings concluded that prevention and control of anemia must be offered to all pregnant mothers. Antenatal care must include supplementation of iron and folic acid, teaching on iron containing diet and personal hygiene.

Key words:

Pregnant Mothers, Anemia

Introduction

One of the MDGs goals of Nepal is to reduce anemia in pregnant women to 43 %(MoH, DHS, 2010). In Nepal, maternal death due to anemia is 4 %(MoH, DHS, 2010). Anemia either directly or indirectly contributes to about 20-25% of maternal deaths in the third world countries (WHO, 2002). Approximately three quarters of women and children are affected by iron deficiency anemia in Nepal (GoN,New ERA,1998). So that all pregnant women must be screen at every visit for anemia to prevents and treat anemia during pregnancy and to reduce possible complications that may arise during childbirth and postpartum period.

Anemia is a common medical disorder of pregnancy found in Nepal. It is the major cause of maternal and fetal mortality. Incidence of anemia in pregnancy ranges widely from 40-80 % compared to 10-20% in the developed countries. In Nepal, 15-49 year women 36% exhibiting anemia and among pregnant women 2 out of 5 women are anemic with 29% mildly anemic, 6%moderately anemic and less than 15 severely anemic (GoN, MoH, 2007). Approximately 90% of anemias in pregnancy are the iron deficiency. The remaining 10% of cases embrace a considerable variety of acquired and hereditary anemia, including folic acid deficiency, sickle cell anemia and thalassemia (Dutta, 2007).Anemia in pregnancy contributed to maternal morbidity and mortality, IUGR, preterm delivery and perinatal morbidity and mortality.

As the government policy, all pregnant women are supplied iron tablet with free of cost. But in TUTH, there is no provision of free supply of iron tablet.
During pregnancy when hemoglobin concentration in blood is less than 11gm/100ml, it is known as anemia in pregnancy. They were graded as Severe - Hb%less than 7g, Moderate -Hb%7-11g, No clinical Anemia -Hb %> 11g(WHO, 1999)

The principle causes of anemia in pregnancy are iron and folic acid deficiencies, intestinal parasitic infestations and haemoglobinopathies. The woman, who has got sufficient iron reserve and is on a balanced diet, is unlikely to develop anemia during pregnancy in spite of an increased demand of iron. But if the iron reserve is inadequate or absent, the factors which lead to the development of anemia during pregnancy.The demand of iron during pregnancy is increased. An adequate balanced diet contains not more than 18-20mg of iron and assuming that the absorption rate is increased by two folds, the demand is hardly fulfilled. Pre-pregnant health status, socioeconomic factors, faulty dietetic habits, loss of appetite and vomiting in pregnancy are also responsible factors of anemia (Dutta, 2007)

The early stages of anemia in pregnancy are often symptomsless.However, as the hemoglobin concentration falls, oxygen supply to vital organs declines, and expectant mother begins to complain of general weakness, tiredness, dizziness and headaches (WHO, 1992).

Inspite of the magnitude of anemia in Nepal, the problem has received little attention. There have also little been relatively few research. Therefore this study was carried out with the aim of identify the anemia in pregnant women on the basis of Hb level. The specific objectives of the study were firstly to determine the Hb level of pregnant mothers, secondly to find out association of Hb level between primi mother and multi mother.

Methodology

A descriptive cross-sectional study was carried out among 687 pregnant mothers who were attending in antenatal clinic, TUTH from 2068 kartic 16 to 2068 poush 14. Non probability purposive sampling technique was adopted to collect the data. Data was collected through analysis record of Hb% in antenatal card (yellow card) of each primi and multi pregnant mother who were came second visit in Antenatal OPD. Hb % level of each pregnant mother was assessed in first visit themself.The obtained data were analyzed by using descriptive statistics e.g. frequency and percentage.

Results

In this article, socio demographic characteristics of pregnant women were excluded, only age variable included. The Table 1 reveals that majority (46.7%) of the pregnant mothers from 21-25 years age group.

Table 1
Age Distribution of Pregnant women

Age in Year	Number	Percentage
16-20	100	14.5
21-25	321	46.7
26-30	190	27.6
31-35	70	10.1
>35	6	0.8
Total	687	100

In regards the obstetric findings, majority (58.5%) pregnant women were primi (Table 2) and 37.7% pregnant women had term gestational age (Table 3)

Table 2
Distribution of No of Pregnancy of Pregnant Women

No of pregnancy	Number	Percentage
Primi	402	58.5
Gravida 2	203	29.5
> 2 Gravida	82	11.9
Total	687	100

Table 3
Distribution of Gestational Age in Weeks of the Pregnant Women

Gestational Age in Weeks	Number	Percentage
28-30	85	12.3
31-33	142	20.6
34-36	192	27.9
37-40	259	37.7
>40	9	1.3
Total	687	100

Table 4
Distribution of Hemoglobin Level of the Pregnant Women

Hb%level	Number	Percentage
<7gm	-	-
7-11gm	116	16.8
>11gm	571	83.1
Total	687	100

The table 4 revealed that only 16.8% pregnant women had moderate anemia and 83.1% pregnant women had >11gm Hb level.The study also revealed that majority(11.2%) primi mother had moderate level anemia(7-11gm Hb level) and only 5.6 %multi gravida mother had (Table 5).

Table 5
Association of Hb level in Primi and Multi Gravida Pregnant Mother

Hb % level	Primi Gravida		Multi Gravida		Total	
	No	%	No	%	No	%
< 7 gm	-	-	-	-	-	-
7-11 gm	77	11.2	39	5.6	116	16.8
>11 gm	325	47.3	246	35.8	571	83.1
Total	402	58.5	285	41.4	687	100

Discussion

In this study, the majority of the pregnant mothers belonged to age group of 21-25(46.7%).This age group is active group in reproduction .In regards to obstetrical findings, majority of pregnant women(58.5%) are primi and 37.7% pregnant women had term gestational age.11.2% primi gravid mothers and only 5.6% multi gravid mothers had moderate type of anemia. This difference is due to lack of knowledge about nutritious diet and irregular intake of iron tablet. Antenatal care must include supplementation with iron and folic acid, screening and treatment of intestinal parasitic infestation. In other to improve compliance, adapted strategies should be developed such as distributing drugs with a counseling programme (N.Meda et al, 1999)
Anemia remains a major public health problem. WHO estimates suggest that about 56% of women in developing countries are anemic.Sixteen percent of maternal deaths in india may be attributable to anemia. The etiology is in most cases iron deficiency, and it has been emphasized that pregnant women should receive iron and folic acid supplements daily for at least six months, as well as consideration for treatment of hookworm (and in endemic areas, of malaria) (Manandhar.B, 2001).

Conclusion

Prevention and control of anemia is very important to all pregnant women. Antenatal care must include supplementation of iron and folic acid and screening and treatment of intestinal parasitic infestations. A broader approach to correcting iron deficiency in pregnant women should also include teaching on iron containing diet, personal hygiene and family planning.

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