Prevalence of Anemia among Pregnant Women Attending Primary Health Care Center in Bab-Al-Moudham

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Abstract

Background: Anemia is define as decreased hemoglobin level, or circulating red blood cells and it is the most common hematological disorder during pregnancy**.**

Objective(s): To identify prevalence of anemia, risk factors that contribute to the occurrence of anemia, and to explain the main types of anemia during pregnancy.

Materials and methods: A descriptive cross- sectional study conducted at primary health care in Bab- Al-Moudham center in Baghdad city, the sample was selected by non-probability (convenient sampling) and sample size (150). The study started from 1nd March to 10th June 2012, the data was collected by direct interview technique. Previous questionnaire was structured by the researchers to measure the variable of the study; these information infants include (age, educational level, number of children, type of delivery, and type of feeding, .etc).

Results: The results shows that most frequent age group was (2-29) years, (34.7%) of mothers were primary school graduate and about (54%) of the pregnant women with anemia had no abortion and no bleeding.

Conclusions: The study concluded that higher percentage of pregnant mothers was low rate hemoglobin.

Recommendations: The study recommended that encourage pregnant mothers to visit primary health care centers early and regularly and take drugs that prevent the occurrence of anemia during pregnancy period.

Keywords: Anemia, Prevalence, pregnant women.

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Introduction

Anemia represents a major public health problem among women of reproductive age in developing countries. A recent review suggested that 41% of women are anemic [1]. The consequences of anemia for women include increased risk of maternal morbidity and mortality, and lower productivity [2].

Maternal anemia is also associated with a higher risk for low birth weight, premature birth, perinatal and neonatal death, as well as inadequate iron stores for the new born [3]. It is estimated that, each year 271000deaths and 10140000 disability- adjusted life years are attributable to iron deficiency anemia [1].

Common causes of anemia among women in developing countries include micronutrient deficiencies, infections (largely malaria), and pregnancy and poor socio- economic conditions [4].

More than half of the pregnant women in the world have hemoglobin levels indicative of anemia. The most common cause of anemia in pregnancy worldwide is iron deficiency and folate deficiency [5].

The symptoms of anemia vary according to the type of anemia, the underlying cause, and any underlying health problems. Anemia may be associated with other medical conditions such as haemorrhage, ulcers, menstrual problems, or cancer- and specific symptoms of those conditions may be noticed first. The body also has a remarkable ability to compensate for early anemia. World health organization divided anemia in pregnancy in to: Mild anemia (Hemoglobin (Hb) 10-10.9g/dl), moderate anemia (Hemoglobin (Hb)7.0-9.9g/dl), and severe anemia (Hemoglobin (Hb)< 7g/dl)[6].

The aims of the study are to identify prevalence of anemia, risk factors for anemia, and to explain the main types of anemia during pregnancy.

Materials and methods

A descriptive cross- sectional study was conducted to identify the prevalence of anemia among pregnant women. The study was carried out the primary health care center in Bab- Al-Moudham in Baghdad city during the period of 1nd March to 10th June2012.

The sample was selected by (non-probability, convenient sampling) and sample size was (150) pregnant mothers.

A questionnaire was structured by the researchers to measure the variables of the study. This information includes (age, number of children, type of delivery, type of feeding, educational level, occurrence of abortion, .etc.).

The data were collected through interview of pregnant women. The interview with each case lasting for (10) minutes, data were collected during the working hours for center.

Statistical analysis

- Descriptive statistic: Frequency and percentage.

- Chi- square test (X^2) was used for analytic assessment at p- value ≥0.05.

Results

Table (1): Distribution of anemic mothers pregnancy according to the age group.

Age group	Frequency	%
≥ 20	3	2.0
20-29	80	53.3
30-39	59	39.3
≤ 40	8	5.3
Total	150	100.0

Table (1) shows that age groups between (20-29) is more anemic compared with others age groups which were 53.3%. While the lowest percentage with age group less than 20 years which are 2%.

Table (2): Distribution of anemic mother's pregnancy according to number of children.

Number of children	Number of pregnant mothers	%
1	8	5.3
2	32	21.3
3	45	30.0
4	43	28.7
5	22	14.7
Total	150	100.0

This table (2) show the pregnant have 3 child it is more anemic than from others which are 30% while the lowest percentage with number of child one which are 5.3%.

Table (3): Distribution of anemic pregnant mothers according to Educational level.

Educational level	No.	%
Illiterate	15	10
Read and write	30	20
Primary	52	34.7
Secondary	37	24.7
University and higher	16	10.7
Total	150	100

This table (3) showed that most of the study sample 34.7% had primary education al level.

Table (4): Distribution of anemic pregnant mothers according to abortion.

Abortion	No.	%
0	81	54.0
1	33	22.0
2	32	21.3
3	4	2.7
Total	150	100.0

This table (4) show that mothers with no abortion were more than from others are 54%.

Table (5): Distribution of anemic pregnant mothers according to bleeding.

bleeding	No.	%
No bleeding	70	46.7
Bleeding before of delivery	15	10
Bleeding during of delivery	27	18
Bleeding after of delivery	38	25.3
Total	150	100

This table(5) show the bleeding pregnant after of delivery more anemic from others which are 25.3% and during of delivery18% and 10% before of delivery while the percentage with no bleeding 46.7%.

Table (6): Distribution of study sample according to age group and Occurrence of bleeding.

Age group	no	Occurrence of bleeding	Total	p-value
≥ 20	2	1	3	
	1.3%	0.7%	2.0%	p.v= 0.098
20-29	37	43	80	
	24.7%	28.7%	53.3%	
30-39	24	35	59	
	16.0%	23.3%	39.3%	
≤40	7	1	8	
	4.7%	0.7%	5.3%	
Total	70	80	150	
	46.7%	53.3%	100.0%	

This table (6) shows that higher percentage were within the age group of 20-29 years who did not have bleeding in 37(24.7%) of cases.p-value was 0.098 which refers to non-significant association.

Table (7): Distribution of study sample according to type of delivery and occurrence of abortion.

Type of delivery	Occurrence of abortion				Total	p-value
	no	1	2	3		
Normal	46	10	19	1	76	p-v= 0.033
	30.7%	6.7%	12.7%	.7%	50.7%	
Caesarean	35	23	13	3	74	
	23.3%	15.3%	8.7%	2.0%	49.3%	
Total	81	33	32	4	150	
	54.0%	22.0%	21.3%	2.7%	100.0%	

This table (7) shows that higher percentage were within the type of delivery is normal who did not have abortion in 46(30.7%) of cases. P-value was 0.033 which refers to significant association.

Table (8): Distribution of study sample according to type of delivery and rate of hemoglobin.

Type of delivery	Rate of Hemoglobin(Hb)			Total	p-value
	low	normal	high		
Normal	58	17	1	76	p.v= 0.03
	38.7%	11.3%	.7%	50.7%	
Caesarean	68	6	0	74	
	45.3%	4.0%	.0%	49.3%	
Total	126	23	1	150	
	84.0%	15.3%	.7%	100.0%	

This table (8) shows that higher percentage were within the type of delivery normal who did low rate hemoglobin in 58(38.7%) of cases. p-value was 0.03 which refers to significant association.

Table (9): Distribution of study sample according to take the drug and the rate of hemoglobin.

Take of drug	Rate of Hemoglobin(Hb)			Total	p-value
	low	normal	high		
Yes	98	21	1	120	p.v= 0.290
	65.3%	14.0%	.7%	80.0%	
No	28	2	0	30	
	18.7%	1.3%	.0%	20.0%	
Total	126	23	1	150	
	84.0%	15.3%	.7%	100.0%	

This table (9) shows that higher percentage were within the take of drug 98(65.3%) of cases. p-value was 0.290 which refers to non-significant association.

Discussion

Anemia is a major health problem that effects 25%- 50% of the population of the world, the prevalence of anemia in pregnancy show great variations in different parts of the world. The prevalence is generally higher and the variation is greater in developing countries with 90% anemia [7].

In present study, 53.3% of pregnant women with anemia were in the age group of (20-29) years. The results of the present study agree with the study which was done by Teta *et al*.,(2008) who mentioned that the age of pregnant women with anemia was (25-34) years old[2].

The results of the present study showed that most pregnant women with anemia have (3) children, and (34.7%) were primary school graduate.

Jamaiyah *et al*.,(2007) in Malaysia stated that being illiterate found to effect the occurrence of anemia in pregnancy compared to being educated pregnant women[8].

Adam *et al.,* (2005) in Sudan claimed that high percentage of anemia during pregnant women have three child [9].

Teta *et al*., (2008) who stated that three variables were not associated with anemia including women's age, household size and current place of residence [2].

Verbeke *et al*., (2012) in Belgian reported that (75.5%) of pregnant women with anemia suffering from hemorrhage [10].

Vanden *et,al*.,(2000) in Southern Malawi who claimed that found(87.2%) of the pregnant women were birth they have normal delivery due to most people prefer a natural birth for caesarean delivery, including the risks and complications[11].

The finding of the study had revealed that (38.7%) of the study sample were normal delivery who did low rate of hemoglobin, p-value was 0.03 which refers to significant association.

Toteja *et al*.,(2006) in India mention that they found most pregnant women had severe anemia while (60.14%) were moderate anemia, and(39.86%) had mild anemia due to the contrast in time, place of the studies and selection of the study population[12].

The results of the present study shows that most pregnant women with anemia were within take drugs (65.3%), p-value was 0.290 which refers to non-significant association.

The same results were seen in Iran [13], and Pakistan [14] they found anemia less common in ladies taking oral iron supplements compared with ladies who were not taking oral iron supplements.

Iron deficiency anemia contributes approximately 50% to total anemia prevalence in West Africa [2].

In conclusion, the pregnant women bearing age (20-29) high percentage anemia. The pregnant women have one gravidity lower percentage anemia. The pregnant women have illiterate level lower percentage anemia. Not Significant differences have been found between age group and occurrence the bleeding (p-value =0.098).

Recommendations. Teach pregnant women good long-term dietary habits as a part of an overall approach to health promotion, however, once iron deficiency is established, a period of iron supplementation is almost certainly necessary in order to improve the iron status of the mother and prevent further consequences of once iron deficiency. Education about dangerous anemia on both pregnant woman and infant by health lectures, TV and posters.

Take drugs that prevent occurrence of anemia through pregnancy period. Health education and encourage pregnant mothers about important family planning (space).

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