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Article

Impact of Severe Anemia on Menorrhagia and Eclampsia in Iraqi Women

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Abstract: The aim of this study to deal with (19) women were reviewed the center of obstetrics and Gynecology Al- Harthyia center with affected and non-affected of severe anemia with patients age between 20 to 39 years old. The patient's charts are started from 1st September 2021 to the 1st of August 2022. Severe anemia during this period associated with menorrhagia and eclampsia for affected women with different kinds of anemia like iron deficiency or thalassemia disease. The level of severe anemia for pregnant or non-pregnant that will absolutely between 4 – 11 g/dL. Anemia in pregnancy women with hemoglobin concentration 11 g/dL explained by world health organization (WHO). The project was associated with prevalence numbers of menorrhagia women were (12) from the total (19) women which constitute the percentage 63.16% as well with women eclampsia from 4 patients that constitute 21.05%.

Keywords: Anemia, eclampsia, Iron, menorrhagia, thalassemia and patients women.

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1. Introduction

Anemia is the excessive anemic that blood have lost due to malnutrition, malabsorption and severe bleeding, this situation may be effect for many people.

The red blood cells carry hemoglobin bind with oxygen from human lungs and carry it to the different tissues of the body.

The percentage of hemoglobin between the two sexes, male and female, the normal value of male hemoglobin is 14-15 mg/dL as well as with the female is 12-13 mg/dL and children hemoglobin varies with different ages. [1].

Many patients male or female suffer from severe anemia which causes many symptoms:

1. Feel chest pain.
2. Feel cold of her hands and feet.
3. Show her face to pale.
4. The patients shows irregular heartbeat [2].

The connection of maternal anemia with pre-eclampsia and eclampsia as well as the low birth that contribute with harmful postpartum hemoglobin [4], [20].

There are severe anemia associated with cardiac output and dyspnea failure which cause fatal of the fetus [3].

Severe anemia in pregnancy due to menstrual abnormality, multi- pregnancy, bleeding and malnutrition [7], [16].

Folic acid and iron deficiency is more prevalent and cause anemic in pregnancy [10], [11] .

Pregnant women feel sickle cells anemia is commonly contributed with many diseases such as preterm delivery, eclampsia and increase the risk of maternal and prenatal mortality [8], [14].

This project was associated with appearance of anemia in pregnant women, so this situation can cause perinatal and stillbirth.

2. Materials and Methods

The project has been done at dentist college, AL-Hikma University. The data was collected from obstetrics and gynecology, center AL-Harthyia.

The data was collected from the period 1st of September 2021 to the 1st of August 2022.

3. Results

Analysis of statistic program (2018) was used to detect the effect of severe anemia on pregnant and non-pregnant of patients ladies. T- Test was used to significant compare between the samples.

$$X^2 = \sum \frac{(0-E)2}{E}$$

X^2 = chi- square, $\sum$ = Summation, O= Obtained No. , E= expected No [5].

Results: the authors found there are significant differences between severe anemia with menorrhagia and eclampsia, this situation explain with 5 tables.

Table 1. Distribution of sample study according to Menorrhagia in sample study

Menorrhagia	No	Percentage (%)
Positive (+ ve)	12	63.16
Negative (-ve)	7	36,84
Total	19	100%
P - value	-----	0,0489*
*(P ≤ 0,05).		

Table 2. Distribution of sample study according to Eclampsia in sample study

Eclampsia	No	Percentage (%)
Positive (+ve)	4	21,05
Negative (-ve)	15	78,95
Total	19	100%
P - value	-----	0,010**
**(P≤ 0,01).		

Table 3. Relationship between Menorrhagia and parameters study

Menorrhagia	Mean ± SE			
	Age (year)	HGB(g/dL)	RBC (10Λ6/UL)	HCT
Positive (+ve)	26.67± 0,77	9.33±0,16	3,63±0.13	29.47±0,54
Negative (-ve)	28,71±2,34	9,37±0,25	3.84±0,22	30,20±0,41
T - test	3.946NS	0,630- NS	0,537 NS	1.692 NS
P - value	0.287	0,899	0,415	0,377
NS: Non – significant.				

Table 4. Relationship between Eclampsia and parameters study

Eclampsia	Mean ± SE			
	Age (year)	HGB(g/dl)	RBC (10Λ6\UL)	HCT
Positive (+ve)	31,00 ± 3.69	9.25±0.45	3.83±0.35	30.22±0.74
Negative (-ve)	26.46±0.68	9.37±0.13	3.67±0.12	29.61±0.44
T - test	4.07*	0.745NS	0.636 NS	2.002 NS
P - value	0.050	0.731	0.602	0.526
*(P≤ 0,05), NS: Non – significant.				

Table 5: Correlation coefficient between Menorrhagia and Eclampsia with parameters study

Parameters	Correlation coefficient –r	
	Menorrhagia	Eclampsia
Age	-0.24 *	0.45 **
R.B.C	-0.03 NS	0.08 NS
HGB	-0.26*	0.12 NS
HCT	-0.27*	0.15 NS
*(P≤ 0,05),**(P≤0.01), NS: Non – significant.		

4. Discussion

The results of the study focused on severe anemia associated with menorrhagia and eclampsia in Iraqi women, the situation explained in many tables.

Distribution of severe anemia according to menorrhagia in sample study

The study deals with (19) women suffering from severe anemia, the study showed significant (12) severe menorrhagia patients

This situation due to malabsorption, malnutrition, Blood loss and iron deficiency. Table (1), abnormal uterine bleeding before menopause [6], [23].

The relationship between severe anemia and eclampsia this study showed significant results P < 0. 01. Table (2). High prevalence complication disease of obstetrics and

Gynecology can cause mortality rate associated with severe anemia among pregnant patients [8], and severe anemia in children and childbearing aged women [7], [19].

This study showed there is relationship between menorrhagia and parameters like age of the patients, HGB, R.B.C and HCT.

The conclusion of study showed there is no significance between menorrhagia and parameter Table (3).

The irregular bleeding in women with suitable reproductive age and there are many parameters that cause menorrhagia in patients:

1. Age
2. Hormonal imbalances.
3. Contraceptive devices.(I.U.D).
4. Vaginal lesion.
5. Renal failure.
6. Severe Gums bleeding.
7. Uterine fibroids. [6] [17].

The project focused that relationship between pre – eclampsia and eclampsia with parameter of study.

For this situation there are significant correlation between age and menorrhagia P < 0, 05 as well between age of the patients and eclampsia P < 0,01 Table (4).

The pregnant women with sickle cell anemia certainly develop several diseases such as eclampsia preterm delivery and prenatal mortality [8].

The study outcome showed there is correlation coefficient between menorrhagia, eclampsia and parameters. The results prevalence there are significance differences between age of the patients with menorrhagia and eclampsia [18][21].

P< 0, 01 , P < 0,05 and no significant for others parameters Table (5) .

The response to iron therapy on maternal and neonatal outcomes in pregnant women have anemia (19). Perinatal attached with pregnancy of anemic patients[9][22] .

5. Conclusions

This paper was focusing on severe anemia in non-pregnant and pregnant women this situation due to malabsorption, malnutrition, iron deficiency, and abnormal menstrual cycle, the patients who have kidney disease and cannot it make normal secretion of erythropoietin hormone which help bone marrow to manufacture new red and white blood cells. The study concluded that menorrhagia in non-pregnant and pre-eclampsia or eclampsia in pregnant women can cause by several ways of severe anemia .

Interest Conflict

The authors have fundus for this project and supported by themselves, but no support from official fundus.

Consent For Publication

The authors declares that study has consent for publication in Scopus journals.

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