



Anemia in Pregnant Women in Albania, still a Significant and Challenging Health Problem

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ABSTRACT

Anemia is one of the most commonly encountered medical disorders during pregnancy in Albania. According to WHO, hemoglobin level below 11gm/dl in pregnant women constitutes anemia.[1] Anemia is the most common nutritional deficiency disorder in the world. Our aim was to determine the prevalence of anemia among pregnant women at Pathology of Antenatal Care in 2nd and 3rd trimester during 2015. Total 214 (53.1%) anemic pregnant women were enrolled for the study from 403. Out of 101 (48%) belongs to primi gravidae and 193 (58.5%) to multi gravidae. The anemia is reality during pregnancy, efforts should be geared to the early detection and treatment of anemia before delivery.

KEYWORDS : Prevalence, Anemia, Pregnancy, Trimester, Hemoglobin.

Introduction

Anemia is one of the most commonly encountered medical disorders during pregnancy. Most women start their pregnancy with anemia or low iron stores, so prevention should start even before pregnancy.

The high prevalence of untreated anemia has a significant negative impact on the productivity of the community and the incidence is related to the socioeconomic status of the population. As a public health approach, prolonged oral supplementation beginning before the woman becomes pregnant may be a better strategy to benefit the majority of the population.[2,5]

According to WHO, hemoglobin level below 11gm/dl in pregnant women constitutes anemia anemia. and a hematocrit of less than 33%. Anemia may increased weakness, lack of energy, fatigue and poor work performance. Also that can increased incidence of pre-term labour (28.2%), pre-eclampsia (31.2%) and sepsis.[3]

Anemia contributes to low birth weight and miscarriages and it is also a primary cause of low immunity of both the mother and the child [2]. Iron absorption during pregnancy is determined by the amount of iron in diet, its bioavailability (meal composition) and the changes in iron absorption that occurs during pregnancy. Although iron requirements are reduced because of absence of menstruation these raised steadily thereafter as high as > 10 mg/day [3].

Knowledge of the current situation of the condition in our environment is necessary. This knowledge will motivate antenatal caregivers toward early detection and prompt management of anemia in pregnancy.

Aims

Our aim was to determine the prevalence of anemia among pregnant women at Pathology of Antenatal Care at a tertiary obstetrics- gynecology center at university hospital "Koco Gliozheni" in Tirana, Albania.

Methods: This was a retrospective study of one of random third trimester at the 1528 pregnant women, that were hospitalized between January 1 and December 31, 2015, in Pathology of Antenatal Care at a tertiary unit of the University Hospital Obstetrics - Gynecologic "Koco Gliozheni". We study 403 charts of the patients, that were hospitalized in the July, August and September of the 2015. We collected data on the age, parity, gestational age at booking, interval between last confinement and last menstrual period in the index pregnancy, hemoglobin concentration, red blood cell (RBC) count and hematocrit.

Our data was compare with literature survey on publications and guidelines on the frequency of anemia in Albania with Western countries.

Standardized techniques were used for the biochemical estimations. Venous blood samples were drawn from mothers for the assessment of hematological parameters by automated counter.

Statistical analysis

Data was analyzed using appropriate statistical tests. Data were analyzed using frequencies and percentages for categorical variables and central tendency and dispersion measures (Standard Deviation [SD]) for quantitative variables. All statistical parameters have done with the help of Microsoft Excel.

Results

In our study the anemia is present in 214 (53.1%) of pregnant women (403). The anemia is reality more frequent in this population, because that are hospitalized in the tertiary health care level for other serious clinical health status.

Table 1: Hematological profile of anemic pregnant women according to their age, trimester, parity

Age group	Number	HB(g/dL)	RBC($10^6/\mu\text{L}$)	HCT (%)
< 20	20	10.78 ± 1.15	3.87±0.12	32.78 ± 3.4
21-25	103	10.76 ± 1.16	3.68 ± 0.42	32.17 ± 5.1
26-30	119	10.89 ± 1.01	3.75 ± 0.37	32.78 ± 3.2
>30	161	10.7 ± 1.15	2.86 ± 0.316	32.2 ± 3.44
2 nd Trimester	135	10.77 ± 0.96	3.7 ± 0.38	32.4 ± 4.2
3 rd Trimester	268	10.7 ± 1.18	3.2 ± 2.4	32.4 ± 4.2
Primi gravidae	210	10.87 ± 1.05	3.73 ± 0.4	32.68 ± 4.2
Multi gravidae	193	10.6 ± 1.17	3.02 ± 2.89	32.1 ± 3.5

The hematological parameters were below the normal range in all age, trimester & parity groups (Table 1).

In 3rd trimester hemoglobin and other parameters were below normal range as compared to 2nd trimester during pregnancy in .The women who belong to splendid multi gravidae reported hemoglobin and other values much lower as compared to women who belong to primi-gravidae.

Table 2: Prevalence of Anemia by age, trimester, parity group.

Age group	Number	Anemia (Yes) (< 11g/dL)	Anemia (No) (> 12g/dL).	P value
<30	242	120 (49.5%)	122 (50.4%)	0.1028
≥30	161	94 (58.3%)	67 (41.6%)	
2 nd Trimester	135	76 (56 %)	59 (44%)	0.4201
3 rd Trimester	268	138 (51.5%)	130 (48.5%)	
Primi gravidae	210	101 (48 %)	109 (52%)	0.0454
Multi gravidae	193	113 (58.5%)	80 (41.5%)	

The anemia is more present in the older women more ≥30 ages (56 %), in during the second (56 %) and third trimester (51.5%), in the

multi gravidae (58.5%).

The anemia is considered to be statistically significant with parity ($p = 0.0454$) in our study, that we related it with other pregnancy and deficient nutrition in iron.

In Albania anemia in the multi gravidae women can explain with short birth interval, and with missing of medicine consulting before starting the new pregnancy. When non-pregnant women with deficit iron become pregnant, they have the poor starting position for a good outcome of pregnancy.

Discussion

The prevalence of anemia in pregnancy is 53.1 % in this study. These was consistent with data observed in other studies in developing countries, where is high too (33% to 75%)[2,4] In this study the hemoglobin was low in multi gravidae and late age women, which was comparable to the other study. The main cause of anaemia in pregnancy may be due to hemodilution (in the 2 nd trimester),[2,5] increased need of body supplement due to growing fetus and in most cases, iron stores were depleted even before a pregnancy starts. Poor iron content of complementary food increase in prevalence of anemia in childhood [5]. With the onset of menstruation and associated blood loss, there is the further rise in prevalence and severity of anemia in adolescent girls

So, early diagnosis of anemia is necessary. Cure of anemia is one of the great challenges to break vicious cycle of anemia in albanian population with targeting on antenatal mother care.

Conclusion

Anemia is a big problem. The high prevalence of anemia, despite the availability and easy access to medical care, indicates the level of information and indifference to health needs. There is an urgent need to aware pregnant women and their families about the importance of antenatal care. There is a need to supervise these parameters during pregnancy also.

We conclude that the prevalence of anemia at hospitalized is still high in Albania. The results suggested that anemia predates the pregnancy in the majority of cases. During pregnancy, efforts should be geared toward the early detection and treatment of anemia before delivery. Also, medical staff managing pregnant women should endeavor to investigate anemic pregnant women further in order to identify the etiology whenever possible, despite commencing the usual treatment with iron and folate[4]. All of these efforts would help to ensure safe motherhood and achieve the relevant targets of the Millennium Development Goals.

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