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### **Morbidity Profile Of Women During Pregnancy: A Hospital Based Study**

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#### **ABSTRACT**

**Objective:** To study the morbidity pattern in pregnant women and relationship of these morbidities with socio-economic and demographic factors.

**Material and Method:** Present study was conducted at OPD of Qabalatwa-Amraz-e-Niswan (Obstetrics &Gynaecology), A.K. Tibbiya College hospital, AMU Aligarh among pregnant women during the study period. Data were analyzed using SPSS, using tabulation with percentage and chi-square test was used for testing the crude associations.

**Results:** In the present study a total of 150 pregnant women were included for the study material, out of which 93.4% of the antenatal women reported illness during antenatal period majority of women 92 (61.3%) were found to have ill-health as associated with Avitaminosis after which, the morbidity was highly found to be associated with Anaemia as 52 (34.6%) women were found to have anaemia and 46 (30.6%) have Vaginitis and Vulvitis.

The common non-obstetric morbidities reported were gastrointestinal disorder (24.6%), Dental caries & Pyorrhoea (15.3%), Pulmonary tuberculosis and Amoebiasis (14%) etc. The obstetric morbidities other than Avitaminosis and Anaemia included IUGR (8%), urinary tract infection (4.6%), pre-eclampsia (4%), abnormal presentation (4.6%) and Hyperemesis gravidarum (3.3%).

**Conclusion:** Maternal morbidity is markedly high, although most of the common problems were not severe. They are more likely to have noticeable influence on their health. Most of the conditions could be managed through provision of preventive measures and health education.

**Key Words:** Avitaminosis, Anaemia, morbidity profile, Health education, Demographic factors.

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## **INTRODUCTION:**

The main aim and objective to conduct the study was to understand the morbidity pattern in pregnant women and relationship of these morbidities with socio-economic and demographic factors.

Maternal morbidity is a topic of more concern than maternal mortality. However, maternal mortality is just the tip of the iceberg of the health problems of women. Mortality is not very common due to pregnancy related problems but they suffer severe morbidities. In developing countries, pregnancy and childbirth related complications are the leading causes of disability among women aged 15-44.<sup>1</sup>

The world development report estimated that 18 percent of the burden of disease related to women is due to maternal causes. Maternal health received greater attention after the safe motherhood initiative was launched at an international conference held in Nairobi in 1987. Maternal mortality estimates are used to highlight the plight of pregnant women in less developed countries. Pregnancy constitutes a high risk of morbidity and mortality due to associated physiological stress, which is more severe in developing countries like India which is 10 to 20 times higher than that in the developed countries. There are a few studies on the specific problems of pregnancy. Most of them are hospital based, which are not reliable because only about few of the births in India take place in a health facility. These results thus are not representative of the population. Moreover, hospital based studies shed light only on the acute complications of pregnancy. Long-term consequences of pregnancy are not considered in hospital-based studies and, indeed are missing from almost all research. Very few longitudinal studies are available on the pattern of general morbidity amongst the rural pregnant women.<sup>2</sup>

A small prospective study conducted in a village of India reported that there are 16.5 pregnancy-related morbidities for every maternal death. Another analysis indicates that in developing countries for each maternal death, further 10-15 women suffer serious impairments.<sup>2</sup> Based on some of these estimates it has been calculated that there are 8.25 million maternal morbidities every year worldwide.<sup>3</sup> Others have calculated that there are over 100 acute morbid episodes for every maternal death, giving a global total of 62 million morbidities annually.<sup>4</sup> According to another estimate, in each year over 50 million women experience pregnancy related complications. Fifteen million of which lead to debility because they have no access to medical care and pregnancy has worsened already existing malnourishment or illness, or because the medical care that they do manage to access is substandard.<sup>5</sup>

The World Health Organization (1992) has defined Obstetric morbidity as "morbidity in a woman who has been pregnant (regardless of site or duration of the pregnancy) resulting from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes"<sup>6</sup>

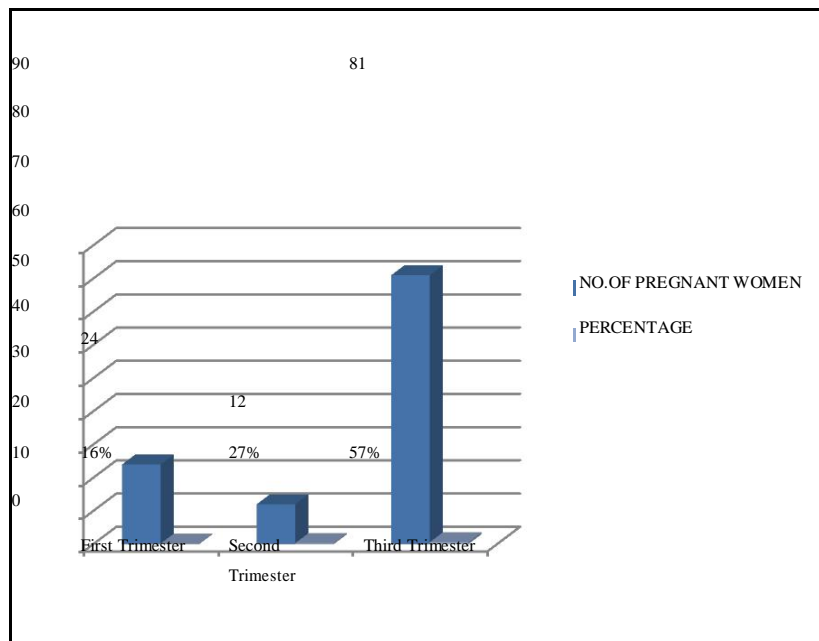
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## **MATERIAL AND METHOD:**

The present cross-sectional study was carried out at Ajmal Khan Tibbiya College Hospital in civil lines Aligarh (U.P), India, to determine the morbidity pattern in pregnant women and relationship of these morbidities with socio-economic and demographic factors.

The AKTC Hospital is situated around urban and semi-urban area. The Ante Natal Care (ANC) clinic is conducted weekly on every Wednesday. The study was carried out from January to May 2000. A total 150 pregnant women visiting the ANC OPD were included in the study by systematic random sampling technique. The participants with the history of amenorrhea underwent a urine pregnancy test, vaginal examination and Ultrasonography in doubtful cases to detect pregnancy. Pregnant women with multiple pregnancies, history of high-grade fever in the last 3 months, bleeding disorder in the previous pregnancy and pregnancy with chronic diseases were excluded from the study. Thus, selected participants were interviewed and data were collected by the help of validated proforma. A detailed demographic profile of the women, that is, age, religion, type of family, family size, educational level of woman and occupation of woman etc were collected. Socioeconomic classifications suggested by B.G. Prasad was adopted and a dietary history was taken with the help of 24-hour dietary recall method. Maternal morbidity includes morbidity during three specific phases, i.e. during Antepartum period, Intrapartum period, and Postpartum period. In the present study maternal morbidity is assessed only for antepartum period.

Graph No: 1 Trimester wise Distribution of Study Participants



In our study, 24(16%) of the pregnant women were in first trimester, 42 (27%) were in second trimester and 84 (57%) were in third trimester as shown in the Graph No.1

Table 1: Socio-Demographic Profile of the Study Participants

Parameters	Participants (n=150)	%
<b>Age distribution</b>		
15-20	7	4.6
20-25	59	39.3
25-30	38	25.3
30-35	25	16.6
35-40	15	10.0
40-45	6	4.0
<b>Religion</b>		
Muslims	128	85.3
Non-muslims	22	14.7
<b>Socio-economic</b>		
I	8	5.3
II	19	12.7
III	42	28
IV	52	34.7
V	29	19.3
<b>Literacy Status</b>		
Illiterate	93	62
Literate	57	38
<b>Occupation</b>		
House wife	135	90
Working	15	10
<b>Parity</b>		
Primigravida	33	22
Secondgravida	05	3.3

Multigravida	112		74.6
<b>Total</b>	<b>150</b>		<b>100%</b>

The demographic characteristics of the study subjects are summarized in Table 1. The majority of the subjects were between ages 20 to 35 years with an average age of 27.5 years. About 4.6% of all the pregnancies occurred among teenagers and 30% were among women aged 30 years and above it was observed that the maximum number of the study subjects 128 (85.3%) were Muslim only 38% women were literate and 90% were house wives in our study.

**Table 2-Distribution of Study Participants According to Type of Morbidity**

	Type of Morbidity	No of patients	%
<b>Obstetric</b>	Avitaminosis	92	61.3
	Anaemia	52	34.6
	Intra Uterine Growth retardation	12	8
	UTI	07	4.6
	Abnormal Presentation	07	4.6
	Hypertension	07	4.6
	Pre-eclampsia,	6	4
	Vaginal bleeding	06	4
	Hyperemesis Gravidarum	05	3.3
	Others obstetric problems	07	4.6
	<b>MR*</b>	<b>69</b>	<b>46</b>
	<b>Non-obstetric</b>	Vaginitis & Vulvitis	46
Gastro-intestinal disorders		24	16
Dental carries & pyorrhea		23	15.3
Pulmonary Tuberculosis		21	14
Amoebiasis		21	14
Helminthiasis		13	8.6
Congenital problem		05	3.3
Others		06	4
<b>MR*</b>		<b>12</b>	<b>8</b>

**\* Multiple Responses**

Based upon the reported symptoms obstetric and non-obstetric problems were identified and shown in Table 2. Percentage of obstetric and non-obstetric problems is also shown individually. For obstetric problems women were visited the hospital in which majority of women were suffering from Anaemia and Avitaminosis. 6 (4%) women were for vaginal bleeding, 6 (4%) women were visited for pre-eclampsia, 12 (8%) were visited for IUGR, 6 (4%) patients were visited for others

obstetrical problems like post term pregnancy and preterm labour and 12 (8%) were reported to have at least more than one health problem related directly to their pregnancy. For non-obstetric problems, the important morbidity reported were Vaginitis & Vulvitis in 46 (30.6 %) gastrointestinal disorders in 24 (16%), Pulmonary tuberculosis in 21 (14%), congenital problem like incompetent os and contracted pelvis 5 (3.3%) & others morbidities were present in 12 (8%) pregnant mothers which include thyroid, PID, VDRL positive and Asthma etc.

**Table 3-Causes of Morbidity in Different Trimesters of Pregnancy**

S.No	MORBIDITY	TRIMESTER			TOTAL	%
		I	II	III		
1.	Avitaminosis	23	25	44	92	61.3
2.	Anaemia	8	14	30	52	34.6
3.	Vaginitis & Vulvitis	19	13	14	46	30.6
4.	Amoebiasis & Giardiasis	8	11	15	34	22.6
5.	Dental Carries & Pyorrhoea	13	20	14	47	31.3
6.	Pulmonary T.B	0	10	06	21	14
7.	Albuminorrhea	02	05	07	14	9.3
8.	Intra Uterine Growth Retardation	0	05	07	12	8
9.	Hypertension	0	02	05	07	4.6
10.	Cholelithiasis	01	02	01	04	3.1
11.	Fibroid	01	01	0	02	1.3
12.	Syphilis	01	0	01	02	1.3

## **DISCUSSION:**

In the present study Avitaminosis was the chief cause of morbidity and poor health status of expectant mothers. Avitaminosis includes deficiency of vitamin A, D, B complex, C and folate and it occurs due to inadequate food intake, personal like and dislike (Food Fads) and beliefs associated with food intake during pregnancy. West.K.Pet.al conducted a double blind, cluster randomized trial of low dose supplementation with vitamin A or beta carotene on mortality related to pregnancy in Nepal and found that mortality related to pregnancy in the placebo, vitamin A, and beta carotene groups was 704, 426, and 361 deaths per 100 000 pregnancies, yielding relative risks (95% confidence intervals) of 0.60 (0.37 to 0.97) and 0.51 (0.30 to 0.86). This represented reduction of 40% (P<0.04) and 49% (P<0.01) among those who received vitamin A and beta carotene. Combined, vitamin A or beta carotene lowered mortality by 44% (0.56 (0.37 to 0.84), P<0.005) and reduced the maternal mortality ratio from 645 to 385 deaths per 100 000 live births, or by 40% (P<0.02). It can be concluded from the study that Avitaminosis is a cause of maternal morbidity and similar results were found in the present study also.<sup>7</sup>

Iron deficiency anemia was the second most common cause of morbidity in expectant mothers, which was found 34.6% more common in third trimester especially in multipara. Brabin B. Jet.al 2001 conducted a study on analysis of anemia and pregnancy related maternal mortality and

found relative risk of maternal mortality with severe anemia was 3.51 (95% CI: 2.05-6.00)<sup>8</sup>

14% expectant mothers were suffered from pulmonary tuberculosis. Overcrowding, illiteracy, low socio economic status and malnutrition were found as major predisposing factors. Khan. M *et.al* 2001 conducted a prospective study to document the impact of tuberculosis and HIV-1 on maternal mortality and found that fourteen of the 15 mothers with tuberculosis were HIV-1 co-infected. The mortality rate for tuberculosis and HIV-1 co-infection was 121.7/1000; for tuberculosis without HIV-1 co-infection, 38.5/1000<sup>9</sup>.

In this study, the prevalence of IUGR was found to be 9.5%. While as in study conducted by Muthayya, S. et al. 2006, it was found that the prevalence of IUGR in apparently healthy women was more (28.6%).<sup>10</sup>

In the present study 30.6% expectant mothers were found to be suffering from infective vaginitis and vulvitis which was comparable with studies done by Goto, A. et al 2005<sup>11</sup> Intestinal Protozoal infection was found in 22.6% of the women in the present study which was comparable with study done by Lengerich, E. J. et al. 1993.<sup>12</sup>

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## CONCLUSION AND SUGESTION:

Non-utilization of maternal health services (due to illiteracy and unawareness) large family size, high parity, repeated pregnancies, beliefs associated with food intake during pregnancy, poverty, low socio economic status, poor environmental conditions and several unhygienic practices are important influencing factor on morbidity profile during pregnancy.

Based on the present study it is suggested that during pregnancy some preventive measures and, timely medical advice for illness can minimize the ill effect to the pregnant mother.

In short, results present a forceful plea for greater attention to, and investment in, the health needs of poor Indian women. Especially for antenatal care need to be strengthened for the need of the community.

Prevention and appropriate management of obstetric morbidity events may reduce these outcomes.

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**Ethical approval:** This study was approved by the Institutional Ethics Committee of AMU.

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