Section: Obstetrics and Gynecology

Original Research Article

THE STUDY OF MEDICAL DISORDERS IN PREGNANCY AMONG INPATIENTS IN A TERTIARY CARE HOSPITAL

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Abstract

Background: Pregnancy is a physiological condition which is complicated by many medical disorders. These adaptations may be hindered by medical conditions, which could also complicate pregnancy and the fetus. Changes occurring during pregnancy are required for the good outcome of foetus and mother. **Materials and Methods:** Retrospective study in 1000 patients with medical disorders in pregnancy admitted in tertiary care hospital from Dec 2020 to Dec 2022 in the department of obstetrics and Gynecology, Government General Hospital, Kurnool. Pregnant women admitted in the department were administered with pre tested semi structured questionnaire after taking written informed consent. Patient's demographic parameters and chief complaints, past medical and obstetric history was taken. General and systemic examination was done and necessary investigations depending upon suspected underlying medical conditions were done. Baseline investigations like Complete Blood Count, Peripheral Blood Smear, Liver Function Test, Renal Function Test, Random Blood Sugar, HIV test, HBsAg test, Routine urine and Obstetric USG done in all patients. **Result:** Majority (66.5%) of the study participants belong to age group of 19-30 years. 26.4% participants were belonging to age group of greater than 31 years followed by teenage pregnancies constitute 6.8%. 56% of the study participants came to the hospital by their self and 44% of them by referral. Insignificant differences were observed between the still born and dead born babies. Most of the study population had anemia which was 76.3% followed by hypothyroidism (26.4%), Pre-eclampsia(26.2%), Eclampsia(17.6%), HIV(12.1%), GDM(10.4%), Postpartum Cardiomyopathy(9.2%), Malaria(8.7%), Asthma (8.4%), Epilepsy (7.3%), TB (5.5%), ITP (5.3%), Acute Renal failure (4.3%), Hyperthyroidism (4.2%), RHD(2.6%), MVP(2.3%), Portal hypertension (2.1%), DJ Stent(1.2%) and Mental disorders(0.8%).Maternal deaths were observed most in anemic and Eclampsia patients (33.3%) followed by Pre-eclampsia, Post-partum Cardiomyopathy (16.6%), ARF (8.3%). **Conclusion:** IEC programs should be conducted to increase the awareness on medical disorders and their simple preventive measures should be known.Health education regarding Danger signs and many national programmes which are playing major role in decreasing maternal and infant mortality should be given. Further research should be done in the area to know the knowledge of the mothers regarding the medical disorders affecting pregnancy.

INTRODUCTION

Pregnancy is a physiological condition which is complicated by many medical disorders.[1] These adaptations may be hindered by medical conditions, which could also complicate pregnancy and the fetus.[2] Changes occurring during pregnancy are required for the good outcome of foetus and mother. High risk pregnancies are identified as pregnancy in which there is a risk of adverse outcome in the

mother and / or baby that is greater than the incidence of that outcome in general population.

Pregnancy is not advised in certain high-risk situations, and an early abortion may be necessary to protect the mother's and the fetus's health. Eighty percent of maternal deaths are caused by direct causes, while twenty percent are caused by pre-existing conditions that are made worse by pregnancy or its care.[3]

Maternal and foetal mortality and morbidity is still higher in developing countries in comparison to the developed countries but over past years maternal mortality have decreased worldwide nations.[4]

The burden of diseases like chronic respiratory disease, heart disease and diabetes are in increasing trend in the low and middle income countries.[5]

Health outcomes for both the mother and the foetus were historically substantially poorer when medical conditions were present during pregnancy. With the growth of scientific technology in the medical profession, notably in the areas of paediatrics and obstetric anaesthesia, more positive outcomes can be obtained even in pregnancies including medical illnesses.[6]

The physiological changes of pregnancy are well tolerated by most of women and are reversible. Medical problems may interfere with the physiologic adaptations of pregnancy and cause poor pregnancy outcome and vice versa.[7,8]

In developed nations maternal mortality ratio are at 17 per 1,00,000 live births, in developing nations, it is 450 for the same no. of live births.[9] The MMR declined in India by about 70% from 398/100000 live births (95% CI 378-417) in 1997- 98 to 99/100000 (90 - 108) in 2020.

Aims and Objectives

1. To know the incidence,type and demographic profile of medical disorders in pregnancy among inpatients at tertiary care hospital.
2. To have a better insight on the most common disorders, for better approach to prevent the medical disorders and have a better outcome.

MATERIALS AND METHODS

Retrospective study in 1000 patients of medical disorders in pregnancy admitted in tertiary care hospital from Dec 2020 to Dec 2022 in the department of obstetrics and Gynecology of Government General Hospital, Kurnool.

Study design: Retrospective study

Study Area: Department of obstetrics and Gynecology of Government General Hospital, Kurnool.

Duration of the study: The study period will be two years

Sample size: 1000

Inclusion Criteria

All the cases of medical disorders in pregnancy will be included in study.

Exclusion Criteria

All the pregnant women without any medical disorders were excluded from this study

Investigations Required

1. Complete Blood Picture.
2. Blood Grouping.
3. LFT, RFT, Serum electrolytes.
4. Thyroid Profile.
5. RBS.
6. COMPLETE URINE EXAMINATION.
7. HIV, HCV, HbsAg, VDRL Screening.
8. Peripheral smear

Other investigations related to the conditions

Methodology

A retrospective study was conducted in the1000 patients of medical disorders in pregnancy admitted in tertiary care hospital from Dec 2020 to Dec 2022 in the department of obstetrics and Gynecology of Government General Hospital, Kurnool.

Mothers admitted in the department was administered with pre tested semi structured questionnaire after taking written informed consent. Patient's demographic parameters and chief complaints, past medical and obstetric history was taken.

General and systemic examination was done and necessary investigations depending upon suspected underlying medical conditions were done. Baseline investigations like Complete Blood Count, Peripheral Blood Smear, Liver Function Test, Renal Function Test, Random Blood Sugar, HIV test, HBsAg test, Routine urine and Obstetric USG done in all patients. All patients received standard medical line of management as per diagnosis reached. Hospitalisation duration and pregnancy outcome noted. WHO definitions were used to define patients with anaemia, premature birth, still birth, abortion, primigravida, multipara, maternal mortality and low birth weight.

Statistical Analysis

Data collected will be entered in Microsoft excel. Frequencies are expressed as percentages. Continuous data will be expressed as means and standard deviation. Tests of significance used are Chi-square test and student T test. Statistical analysis will be done by using SPSS version 26. Level of significance is taken as $p<0.05$.

RESULTS

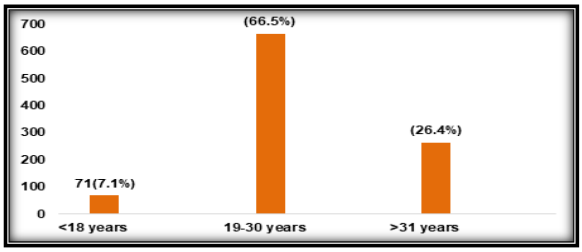

Figure 1: Distribution of pregnant women based on their Age

Majority (66.5%) of the study participants belong to age group of 19-30 years. 26.4% participants were

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belong to age group of greater than 31 years followed by teenage pregnancies constitute 6.8%. [Figure 1]

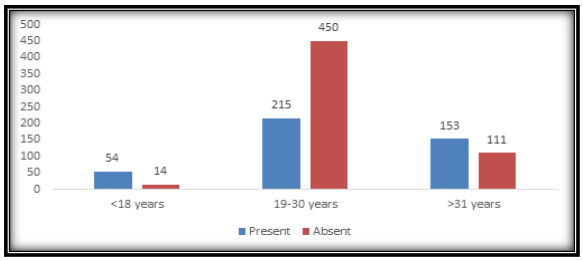

Figure 2: Association between Age of pregnant women and complications of pregnant women

X2=91.94, p<0.00001*

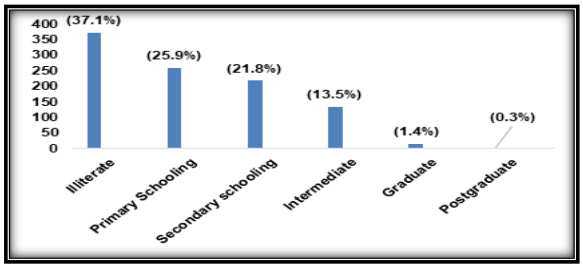

Figure 3: Distribution of pregnant women based on their education

Majority (37.5%) of the study participants were illiterates, primary schooling (25.9%), secondary schooling (21.8%), 13.5% were completed intermediate and 1.7% of study participants were graduates and post graduates by their qualification.

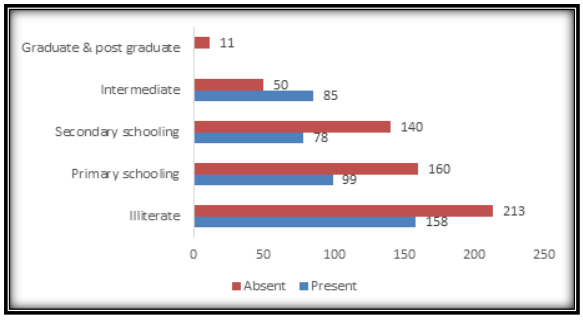

Figure 4: Association between Education of pregnant women and complications of pregnant women

X^2 = 29.43, P<0.000001*

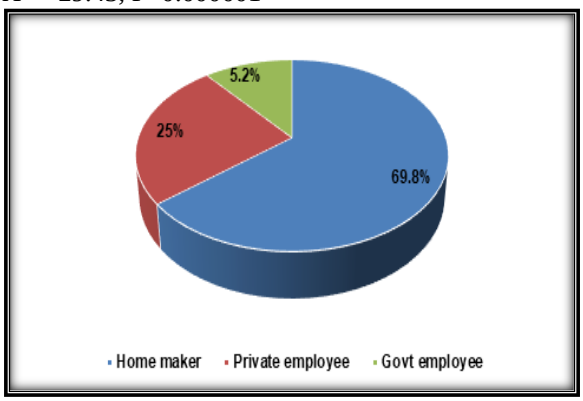

Figure 5: Distribution of pregnant women based on their Occupation

Most of the study participants were Home makers (69.8%) followed by private employees (25%) and Government employees (5.2%).

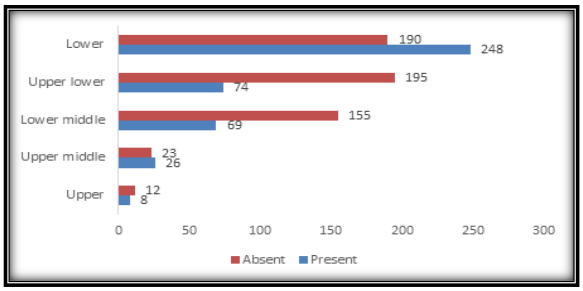

Figure 6: Association between Occupation of pregnant women and complications

X^2 =75.30 P<0.000001*

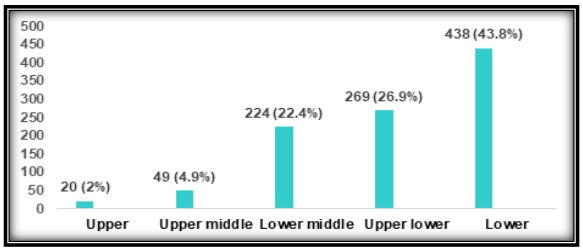

Figure 6: Distribution of pregnant women based on their Socio economic class

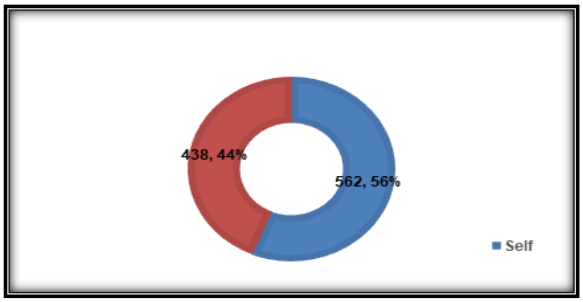

Figure 7: Distribution of pregnant women based on Type of admission

56% of the study participants came to the hospital by their self and 44% of them by referral.

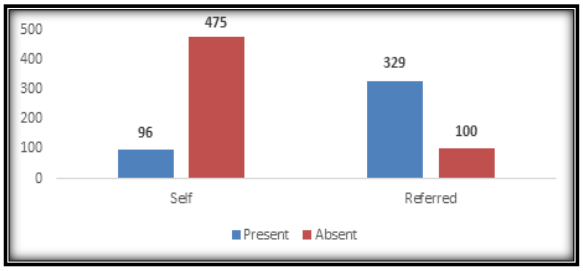

Figure 8: Association between Type of admission of pregnant women and complications of pregnant women

X^2 =359.3, P<0.00001*

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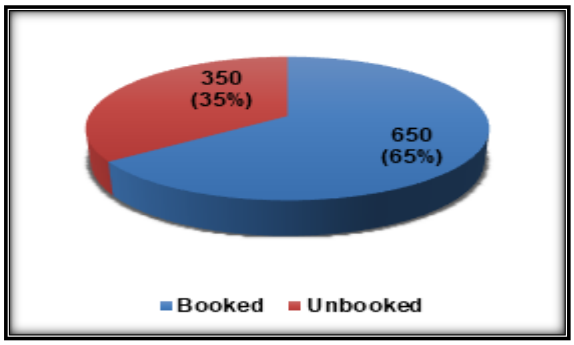

Figure 9: Distribution of pregnant women based on booked status

65% of the study participants were registered their pregnancy (booked case) and 35% of them were not registered their pregnancy (unbooked case).

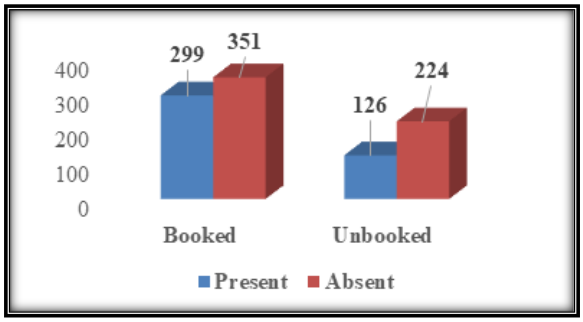

Figure 10: Association between Booking status of pregnant women and complications of pregnant women

X^2 =9.30,P<0.0022*, X^2 =22.68,P<0.00001*

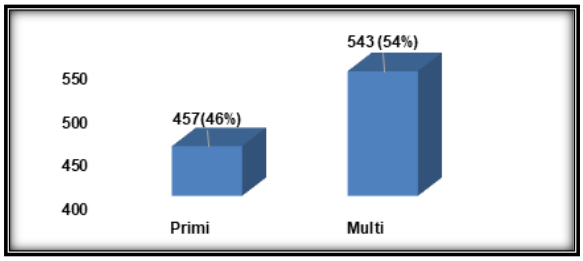

Figure 11: Distribution of pregnant women based on obstetric score

Most (54%) of the study participants were multi gravida and 46% were primi gravida.

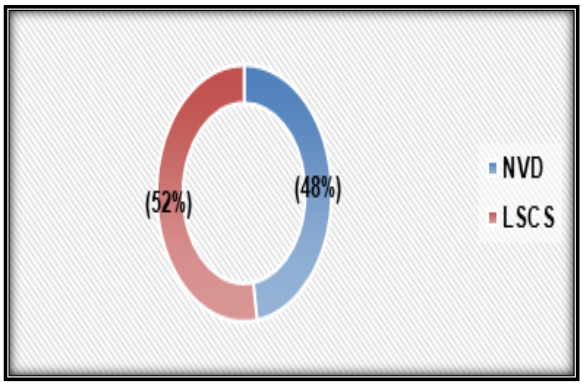

Figure 12: Distribution of pregnant women based on mode of delivery (delivered n=800)

Among 1000 study participants 800 of them were delivered. Out of 800 52% of them were delivered through LSCS and 48% were delivered through NVD.

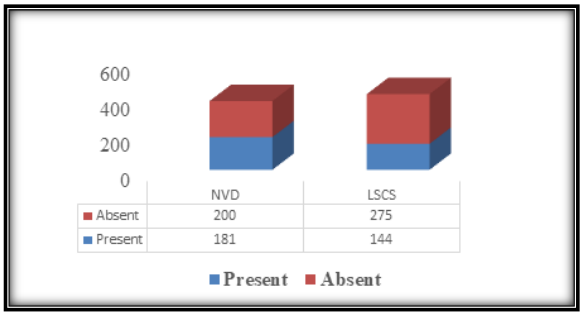

Figure 13: Association between Type of delivery of pregnant women and complications of pregnant women

Table 1: Distribution of pregnant women with medical disorders based on their Age

Age	Frequency	(%)
<18 years	71	7.1%
19-30 years	665	66.5
>31 years	264	26.4

Table 2: Distribution of pregnant women based on their education

Education	Frequency	(%)
Illiterate	371	37.1%
Primary schooling	259	25.9%
Secondary schooling	218	21.8%
Intermediate	135	13.5%
Graduate	14	1.4%
Post graduate	3	0.3%

Table 3: Distribution of pregnant women based on their Occupation

Occupation	Frequency	(%)
Home maker	698	69.8%
Private employee	250	25%
Govt employee	52	5.2%

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Table 4: Distribution of pregnant women based on their Socio economic class

Socio economic class	Frequency	(%)
Upper	20	2%
Upper middle	49	4.9%
Lower middle	224	22.4%
Upper lower	269	26.9%
Lower	438	43.8%

Table 5: Distribution of pregnant women based on Type of admission

Type of admission	Frequency	(%)
Self	562	56.2%
Referral	438	43.8%

Table 6: Distribution of pregnant women based on Booked status

Booked status	Frequency	(%)
Booked	650	65%
Unbooked	350	35%

Table 7: Distribution of pregnant women based on obstetric score

Obstetric score	Frequency	(%)
Primi	457	45.7%
Multi	543	54.3%

Table 8: Distribution of pregnant women based on mode of delivery (delivered n=800)

Mode of delivery	Frequency	(%)
NVD	381	48%
LSCS	419	52%

Table 9: Distribution of various Medical disorders in pregnancy

Complications	Frequency (n=425)	(%)
Anaemia	324	76.3
GDM	44	10.4
Eclampsia	75	17.6
Pre-eclampsia	111	26.2
HIV	52	12.1
TB	23	5.5
Malaria	37	8.7
Dengue	5	1.1
Asthma	36	8.4
Portal hypertension	9	2.1%
Epilepsy	31	7.3
ITP	23	5.3
Acute Renal failure	18	4.3
RHD	11	2.6
MVP	10	2.3
Post partum Cardiomyopathy	39	9.2
Mental disorders	3	0.8
DJ Stent	5	1.2
Hypothyroidism	112	26.4
Hyperthyroidism	18	4.2

Most of the study population had anemia which was 76.3% followed by hypothyroidism (26.4%), Pre-eclampsia(26.2%), Eclampsia(17.6%), HIV(12.1%), GDM(10.4%), Post partum Cardiomyopathy(9.2%), Malaria(8.7%), Asthma (8.4%), Epilepsy (7.3%), TB (5.5%), ITP (5.3%), Acute Renal failure (4.3%), Hyperthyroidism (4.2%), RHD(2.6%), MVP(2.3%), Portal hypertension (2.1%), DJ Stent(1.2%) and Mental disorders(0.8%).

Table 10: Requirement of Blood and Blood products in pregnancy with various Medical disorders [n=425]

Complications	Blood and Blood products required	(%)
Anaemia	226	53.1%
GDM	11	2.5%
Eclampsia	56	13.1%
Pre-eclampsia	27	6.3%
HIV	39	9.1%
TB	26	6.1%
Malaria	14	3.2%
Dengue	3	0.7%
Asthma	8	1.8%

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Portal hypertension	5	1.1%
Epilepsy	9	2.1%
ITP	15	3.5%
Acute Renal failure	15	3.5%
RHD	5	1.1%
MVP	2	0.4%
Post partum Cardiomyopathy	8	1.8%
Mental disorders	0	0
DJ Stent	0	0
Hypothyroidism	44	10.3%
Hyperthyroidism	5	1.1%

Mothers having anemia required most blood transfusions (53.1%) followed by eclampsia (13.1%), hypothyroidism (10.3%), HIV (9.1%), Preeclampsia (6.3%), TB (6.1%).

Table 11: Distribution of pregnant women based on mode of delivery (delivered n=800)

Mode of delivery	Frequency	(%)
NVD	381	48%
LSCS	419	52%

Table 12: Mode of delivery in Pregnant women with various Medical disorders

Complications	Normal labour [381]	(%)	LSCS [419]	(%)	P Value
Anaemia	199	52.2%	110	26.2%	0.0001
GDM	18	4.7%	22	5.2%	0.733
Eclampsia	36	9.4%	39	9.3%	0.945
Pre-eclampsia	62	16.2%	49	11.6%	0.061
HIV	34	8.9%	12	2.8%	0.0002
TB	10	2.6%	7	1.6%	0.350
Malaria	22	5.7%	12	2.8%	0.041
Dengue	3	0.7%	1	0.2%	0.271
Asthma	22	5.7%	10	2.3%	0.014
Portal hypertension	5	1.3%	3	0.7%	0.397
Epilepsy	17	4.4%	10	2.3%	0.104
ITP	13	3.4%	8	1.95	0.184
Acute Renal failure	8	2%	10	2.3%	0.784
RHD	6	1.5%	5		0.643
MVP	7	1.8%	3	0.7%	0.154
Post partum Cardiomyopathy	25	6.5%	14	3.3%	0.035
Mental disorders	3	0.7%	0	0	0.068
DJ Stent	3	0.7%	0	0	0.068
Hypothyroidism	74	19.4%	38	9%	0.0001
Hyperthyroidism	9	2.3%	7	1.6%	0.485

Significant differences were observed between the normal delivery and LSCS among anemic patients, HIV, Malaria, Post partum Cardiomyopathy and Hypothyroidism.

Table 13: NICU admissions after delivery of pregnant women with various medical disorders

Complications	NICU Admissions[54]	(%)
Anaemia	22	40.7%
GDM	4	7.4%
Eclampsia	6	11.1%
Pre-eclampsia	7	13%
HIV	2	3.7%
TB	1	1.8%
Malaria	3	5.5%
Dengue	0	0
Asthma	0	0
Portal hypertension	3	5.5%
Epilepsy	0	0
ITP	0	0
Acute Renal failure	2	3.7%
RHD	0	0
MVP	0	0
Post partum Cardiomyopathy	4	7.4%
Mental disorders	0	0
DJ Stent	0	0
Hypothyroidism	8	14.8%
Hyperthyroidism	1	1.8%

NICU admissions were more among the mothers having anaemia (40.7%) followed by hypothyroidism, Pre-eclampsia, eclampsia, GDM, Post partum cardiomyopathy.

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Table 14: Distribution of pregnant women based on Birth weight of their babies (n=800)

Birth weight	Frequency	(%)
<2.5 kg	271	34%
>2.6 kg	529	66%

Table 15: Distribution of low-birth-weight babies or IUGR Babies in various medical [800] disorders

Complications	Low Birth Weight Babies				
	<2.5KG [271]	(%)	>2.5KG [529]	(%)	P value
Anaemia	89	32.8%	220	41.5%	0.016
GDM	8	2.9%	36	6.8%	0.023
Eclampsia	40	14.7%	35	6.6%	0.0002
Pre-eclampsia	52	19.1%	59	11.1%	0.0019
HIV	21	7.7%	22	4.1%	0.033
TB	3	1.1%	17	3.2%	0.070
Malaria	9	3.3%	23	4.3%	0.483
Dengue	1	0.3%	3	0.5%	0.706
Asthma	6	2.2%	16	3%	0.507
Portal hypertension	3	1.1%	6	1.1%	0.972
Epilepsy	4	1.4%	23	4.3%	0.009
ITP	3	1.1%	18	3.4%	0.054
Acute Renal failure	6	2.2%	12	2.2%	0.960
RHD	2	0.7%	9	1.7%	0.268
MVP	2	0.7%	10	1.9%	0.204
Post partum Cardiomyopathy	4	1.4%	34	6.4%	0.001
Mental disorders	1	0.3%	2	0.3%	0.984
DJ Stent	0	0	3	0.5%	0.214
Hypothyroidism	24	8.8%	88	16.6%	0.002
Hyperthyroidism	3	1.1%	13	2.4%	0.185

Significant differences were observed between the <2.5 kg babies and >2.5 kg babies among anemic patients, GDM, Eclampsia, Pre-eclampsia, HIV, TB, Malaria, Postpartum Cardiomyopathy and Hypothyroidism.

Table 16: Distribution of pregnant women based on maturity of babies (n=800)

Maturity of babies	Frequency	(%)
Term	535	67%
Preterm	265	33%

Table 17: Preterm and term babies

Complications	Preterm [265]	(%)	Term [535]	(%)	P value
Anaemia	74	28.3%	235	43.9%	0.0001
GDM	7	2.6%	37	6.9%	0.012
Eclampsia	28	10.5%	47	8.7%	0.416
Pre-eclampsia	30	11.3%	81	15.1%	0.141
HIV	12	4.5%	31	5.7%	0.454
TB	2	0.7%	18	3.3%	0.026
Malaria	2	0.7%	30	5.6%	0.001
Dengue	0	0	4	0.7%	0.158
Asthma	3	1.1%	19	3.5%	0.048
Portal hypertension	5	1.8%	4	0.7%	0.150
Epilepsy	3	1.1%	24	4.4%	0.013
ITP	5	1.8%	16	2.9%	0.358
Acute Renal failure	8	3%	10	1.8%	0.302
RHD	2	0.7%	9	1.6%	0.289
MVP	4	1.5%	6	1.1%	0.642
Post partum Cardiomyopathy	12	4.5%	26	4.8%	0.835
Mental disorders	2	0.7%	1	0.18%	0.216
DJ Stent	0	0	3	0.5%	0.222
Hypothyroidism	20	7.5%	92	17.1%	0.0002
Hyperthyroidism	3	1.1%	13	2.4%	0.217

Significant differences were observed between the preterm deliveries and preterm deliveries among anemic patients, GDM, Malaria, Asthma, Epilepsy and Hypothyroidism.

Table 18: Distribution of pregnant women based on Baby details

Baby details	Frequency	(%)
Still birth	11	1.1%
Live births	767	76.7%
Deaths	22	2.2%
Not delivered	200	20%

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Table 19: Stillbirths and dead borns in deliveries of pregnant women with medical disorders

Complications	Still births [11]	(%)	Dead Borns [22]	(%)	P value
Anaemia	4	36.4%	5	22.7%	0.407
GDM	2	18.2%	4	18.2%	1.000
Eclampsia	0	0	2	9.1%	0.302
Pre-eclampsia	2	18.2%	3	13.6%	0.731
HIV	1	9.1%	0	0	0.151
TB	0	0	0	0	
Malaria	0	0	0	0	
Dengue	0	0	0	0	
Asthma	0	0	0	0	
Portal hypertension	0	0	1	4.5%	0.472
Epilepsy	0	0	0	0	
ITP	0	0	0	0	
Acute Renal failure	1	9.1%	2	9.1%	1.000
RHD	0	0	0	0	
MVP	0	0	0	0	
Post partum Cardiomyopathy	0	0	1	4.5%	0.472
Mental disorders	0	0	0	0	
DJ Stent	0	0	0	0	
Hypothyroidism	1	9.1%	3	13.6%	0.706
Hyperthyroidism	0	0	1	4.5%	0.472

Insignificant differences were observed between the still born and dead born babies among anemic patients, GDM, Eclampsia, Pre-eclampsia, HIV, Portal Hypertension,ARF, Post-Partum Cardiomyopathy, Hypothyroidism and Hyperthyroidism.

Table 20: AMC admissions in pregnant women with various medical disorders

Complications	AMC Admissions [55]	(%)
Anaemia	12	40%
GDM	2	3.6%
Eclampsia	8	14.5%
Pre-eclampsia	4	7.2%
HIV	1	1.8%
TB	1	1.8%
Malaria	0	0
Dengue	1	1.8%
Asthma	0	0
Portal hypertension	2	3.6%
Epilepsy	0	0
ITP	0	0
Acute Renal failure	4	7.2%
RHD	7	12.7%
MVP	5	9.1%
Post partum Cardiomyopathy	8	14.5%
Mental disorders	0	0
DJ Stent	0	0
Hypothyroidism	0	0
Hyperthyroidism	0	0

AMC admissions were observed among the mothers having anemia (40%), eclampsia (14.5%), post partum cardiomyopathy (14.5%), RHD (12.7%), MVP, ARF, Preeclampsia.

Table 21: Maternal deaths among pregnant women with medical disorders

Complications	Maternal deaths [12]	(%)
Anaemia	4	33.3%
GDM	0	0
Eclampsia	4	33.3%
Pre-eclampsia	2	16.6%
HIV	0	0
TB	0	0
Malaria	0	0
Dengue	0	0
Asthma	0	0
Portal hypertension	0	0
Epilepsy	0	0
ITP	0	0
Acute Renal failure	1	8.3%
RHD	0	0
MVP	0	0

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Post partum Cardiomyopathy	2	16.6%
Mental disorders	0	0
DJ Stent	0	0
Hypothyroidism	0	0
Hyperthyroidism	0	0

Maternal deaths were observed most in anemic and Eclampsia patients (33.3%) followed by Pre-eclampsia, Post partum Cardiomyopathy (16.6%), ARF (8.3%).

Table 22: Association of other details of pregnant woman with their associated complications

Other Characteristics	Complications			Chi-square P value
	Present	Absent	Total	
Type of admission				
Self	96(16%)	475(84%)	571(100%)	359.3
Referred	329(77%)	100(23%)	429(100%)	P<0.00001*
Booking status				
Booked	299(46%)	351(54%)	650(100%)	9.30
Unbooked	126(36%)	224(64%)	350(100%)	P<0.0022*
Obstetric score				
Primi	257(56%)	200(44%)	457(100%)	22.68
Multi	168(42%)	375(58%)	643(100%)	P<0.00001*
Type of delivery (n=800)				
NVD	181(48%)	200(52%)	381(100%)	14.28
LSCS	244(34%)	275(66%)	419(100%)	P<0.00015*

Referred cases, booked cases, primes, post-partum, patients requiring blood transfusion and LSCS delivery mothers had more complications and the differences were statistically significant.

DISCUSSION

In the current study it was observed that the Majority (66.5%) of the study participants belong to age group of 19-30 years. 26.4% participants were belong to age group of greater than 31 years followed by teenage pregnancies constitute 6.8%. Majority (46.7%) of the study participants belong to Hindu religion followed by muslims (32.3%) and Christians (20%). Majority (44.6%) of the study participants belong to nuclear family followed by three generation family (36.4%) and joint family (19%). Majority (37.5%) of the study participants were illiterates, primary schooling (25.9%), secondary schooling (21.8%), 13.5% were completed intermediate and 1.7% of study participants were graduates and post graduates by their qualification. Most of the study participants were Home makers (69.8%) followed by private employees (25%) and Government employees (5.2%).

56% of the study participants came to the hospital by their self and 44% of them by referral. 65% of the mothers were registered their pregnancy (booked case) and 35% of them were not registered their pregnancy (unbooked case). Most (54%) of the mothers were multi gravida and 46% were primi gravida. Most (80%) of the mothers were in postpartum period and remaining 20% were dispersed among different trimesters (5.8% I trimester, 7.5% II trimester, 6.7% III trimester).

Most of the study population had anemia which was 76.3% followed by hypothyroidism (26.4%), Pre-eclampsia(26.2%), Eclampsia(17.6%), HIV(12.1%), GDM(10.4%), Post-partum Cardiomyopathy (9.2%), Malaria (8.7%), Asthma (8.4%), Epilepsy (7.3%), TB (5.5%), ITP (5.3%), Acute Renal failure (4.3%), Hyperthyroidism (4.2%), RHD(2.6%), MVP(2.3%), Portal hypertension (2.1%), DJ Stent(1.2%) and Mental disorders (0.8%).[7]

Significant differences were shown between the normal delivery and LSCS among anemic patients, HIV, Malaria, Postpartum Cardiomyopathy and Hypothyroidism.

Blood transfusion was done in 62% of the study participants, remaining 38% has not received any blood. Mothers having anemia required most blood transfusions (53.1%) followed by eclampsia (13.1%), hypothyroidism (10.3%), HIV (9.1%), Preeclampsia (6.3%), TB (6.1%).

NICU admissions were more among the mothers having anaemia (40.7%) followed by hypothyroidism, Pre-eclampsia, eclampsia, GDM, Post-partum cardiomyopathy.

AMC admissions were observed among the mothers having anemia (40%), eclampsia (14.5%), postpartum cardiomyopathy (14.5%), RHD (12.7%), MVP, ARF, Preeclampsia.

Maternal deaths were observed most in anemic and Eclampsia patients (33.3%) followed by Pre-eclampsia, Post-partum Cardiomyopathy (16.6%), ARF (8.3%).

Out of 1000 study participants 20% of them were not delivered, 77% of their babies were alive, 2.5% of their babies are dead (1.2% stillbirths, 1.3 % deaths). Insignificant differences were shown between the still born and dead born babies among anemic patients, GDM, Eclampsia, Pre-eclampsia, HIV, Portal Hypertension, ARF, Post-Partum Cardiomyopathy, Hypothyroidism and Hyperthyroidism.[8]

Among 1000 study participants 800 were delivered. Out of 800, 419 were delivered through Cesarean

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section. Breech presentation (40%), Oblique lie (23%), Fetal distress (14%), Severe oligos (13%), CPD (10%) were some indications of cesarean section.

A cross-sectional study in New Delhi had revealed that there was a trend of decreasing severity of anemia with higher per capita income as found in the present study. One study found that anemia was most common in illiterate women (53.7%) as compared with 37.1% in literate women. A study conducted in 7 states with similar sample used in National Family Health Survey (NFHS)-2 had observed an association between the literacy status of husband with anemia in pregnant women.

Before the introduction of antiretrovirals, elective Caesarean sections alone have been found to reduce the risk of HIV transmission from mother to child by 50% to 70%. In developed countries where facilities for elective surgery are safe and available, planned Caesarean sections at 39 weeks' gestation has become routine practice. More recent studies have shown that for women on HAART with plasma viral loads at delivery of less than 50 copies/mL, the rate MTCT of HIV with both elective caesarean section and vaginal delivery was similar. Vaginal delivery is therefore an option for women with no detectable viraemia on HAART.[8]

Ansari et al. (2008) revealed that the prevalence of anaemia among pregnant women in some metropolitan areas of Pakistan was 90.5%, which was too high compared to the current study. A third of expectant mothers suffer from anaemia. In India's Aurangabad City, anaemia was prevalent in pregnant women by 87.2%. (Lokare et al., 2012).

In the current study, the anaemia correlation with education was 88% in women who were illiterate, 81.8% in primary, 75.5% in middle, 63.3% in matric, 59.4% in intermediate, 55% in bachelor, and low (23.8%) in women who were masters. The prevalence of anaemia continuously rises as educational achievement declines. High prevalence of anaemia was linked to lower levels of schooling. According to one study, the percentages of anaemia among pregnant women in Aurangabad City, India were, respectively, 96.4%, 94.8%, 92.1%, and 91.5% among those with no education, elementary education, middle education, and secondary education (Lokare et al., 2012). In Jima town, Southwest Ethiopia, anaemia prevalence was highest among illiterate women, where it was 53.7% compared to literate women's 37.1%. The same research was done by the National Family Health Survey (NFHS)-2 in seven states, where it looked at pregnant women's anaemia and its relationship to husband literacy.[9]

In comparison to classes I and II (47.61% and 71.42%), pregnant women in Aurangabad, India, had significantly lower socioeconomic conditions (93.51%, 94.49%, and 94.11%). Pregnant women were more likely to experience anaemia in the third trimester (81.9%) than the second (61.3%) or the first trimester (58.6%). Pregnant women at Booking in Enugu, South Eastern Nigeria, experienced the same outcome. Pregnant women were more likely to have anaemia in the third trimester (46.0%) than the second (41.8%) or the first (26.5%).[10]

CONCLUSION

In the current study it was observed that the Majority (66.5%) of the study participants belong to age group of 19-30 years. 26.4% participants were belong to age group of greater than 31 years followed by teenage pregnancies constitute 6.8%. Majority (46.7%) of the mothers belong to Hindu religion followed by muslims (32.3%) and Christians (20%). Majority (44.6%) of the mothers belong to nuclear family followed by three generation family (36.4%) and joint family (19%). Most of the study population had anemia which was 76.3% followed by hypothyroidism (26.4%), Pre-eclampsia(26.2%), Eclampsia (17.6%), HIV(12.1%), GDM(10.4%), Post partum Cardiomyopathy(9.2%), Malaria(8.7%), Asthma (8.4%), Epilepsy (7.3%), TB (5.5%), ITP (5.3%), Portal hypertension (4.4%), Acute Renal failure (4.3%), Hyperthyroidism (4.2%), RHD(2.6%), MVP(2.3%), DJ Stent(1.2%) and Mental disorders(0.8%). IEC programs should be conducted to increase the awareness on medical disorders and their simple preventive measures should be known.Health education regarding Danger signs and many national programmes which are playing major role in decreasing maternal and infant mortality should be given. Further research should be done in the area to know the knowledge of the mothers regarding the medical disorders affecting pregnancy.

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