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ORIGINAL ARTICLE

PREGNANCY RELATED DEATHS IN LUCKNOW - A RETROSPECTIVE STUDY

Anima Prasad[1], Amrish Kumar[2]

[1]Professor, Department of Gynaecology and Obstetrics, TSM Medical College, Lucknow, Uttar Pradesh, India
[2]Senior Pathologist, Dr.SPM (Civil) Hospital, Lucknow, Uttar Pradesh, India

ABSTRACT:
Background: Complications in pregnancy are not uncommon. Most common are pregnancy induced hypertension, hyperemesis gravidarum, low back pain etc. The present study was a retrospective study conducted to record factors leading to pregnancy related deaths. **Materials & Methods:** This study was a retrospective study conducted in year 2010-11. This included all cases of deaths resulting from medical cause related to pregnancy that occur during pregnancy, at delivery or within 42 days of delivery or termination. A total of 32 cases were reported of pregnancy related deaths. Factors such as maternal age, past medical history, previous pregnancies, pregnancy outcome, antenatal care, and gestational age, place of delivery and cause of death was recorded. **Results:** Age group 20-24 years showed 14 cases, 25-29 years showed 10 cases and age group 30-34 years showed 8 cases. The difference among three groups was non significant (P-0.1). 14 cases were live birth, 2 were abortion and 16 were undelivered. The difference was non significant (P>0.05). 16 cases of undelivered patients, 3 were seen in 12 weeks, 2 in 24 weeks, 8 in 32 weeks and 3 in 36 weeks. The difference was significant (P<0.05). Number of deaths recorded at immediate (3), day 1 (4), day 2 (2), day 4 (2), day 5 (1), day 10 (1) and day 30 (1). The difference was non significant (P>0.05). Medical condition of the patients was eclampsia (9), anemia (4), rheumatic heart disease (2), tuberculosis (1), sickle cell disease (1) and abortion (4). 10 cases were non significant. The difference was significant (P<0.05). Various reasons of deaths were rupture uterus (4), retained placenta (3), DIC (7), sepsis (3), postpartum pre-eclamptic shock (4), undetermined (6), tuberculosis (1), meningitis (1), sickle cell disease (1) and rheumatic heart disease (2). The difference was significant (P<0.05). **Conclusion:** Though maternal deaths rate have decreased significantly in last few years, its complete elimination is essential to ensure better care of pregnant ladies. Medical history is important to decrease the mortality rate.
Key words: Complications, pregnancy induced hypertension, hyperemesis gravidarum

Corresponding Author: Dr. Anima Prasad, Professor in Gynaecology & Obstetrics, TSM Medical College, Lucknow, Uttar Pradesh, India

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INTRODUCTION

Complications in pregnancy are not uncommon. Most common are pregnancy induced hypertension, hyperemesis gravidarum, low back pain etc. Pregnancy-induced hypertension (PIH) leads to 15% of maternal deaths. It involves systemic vasospasm that can lead to poor perfusion and eventually tissue ischemia, affecting placental blood flow and the maternal cardiovascular, renal, neurologic, hepatic and hematologic systems.[1] Hyperemesis gravidarum is severe, persistent nausea and vomiting with weight loss, dehydration, hypokalemia, or ketonuria. Unlike morning sickness, which is generally confined to the first trimester and does not often interfere with nutrition, hyperemesis can occur at any point in the pregnancy and can result in ketosis and dehydration.[2]

Low back pain affects 50–90% of women during pregnancy, especially with prior history of back problems, lack of exercise, increasing parity and age, poor posture, or improper lifting. Death may occur as a complication of pregnancy and more than 6 lacs maternal deaths occur each year worldwide. Pregnancy-related complications occur in women leading to deaths and those who survive suffer from severe maternal morbidity. In 1959, the recorded maternal death rate was 1000 per 100000 live births in India which decreased to 301 per 100000 live births in 2003.[3]

Maternal death has been used traditionally as a measure of quality of health care in a community. In past few decades the risk of death from complications of pregnancy has decreased significantly. To report maternal death is quite difficult because this requires information about deaths among women of reproductive age, pregnancy status at or near the time of death and the medical cause of death.[4]
The present study was a retrospective study conducted to record factors leading to pregnancy related deaths.

MATERIALS & METHODS

This study was a retrospective study conducted in year 2010-11. This included all cases of deaths resulting from medical cause related to pregnancy that occur during pregnancy, at delivery or within 42 days of delivery or termination. A total of 32 cases were reported of pregnancy related deaths. Factors such as maternal age, past medical history, previous pregnancies, pregnancy outcome, antenatal care, and gestational age, place of delivery and cause of death was recorded.
Results thus obtained were tabulated and subjected to statistical analysis using chi square test. P value<0.05 was considered significant.

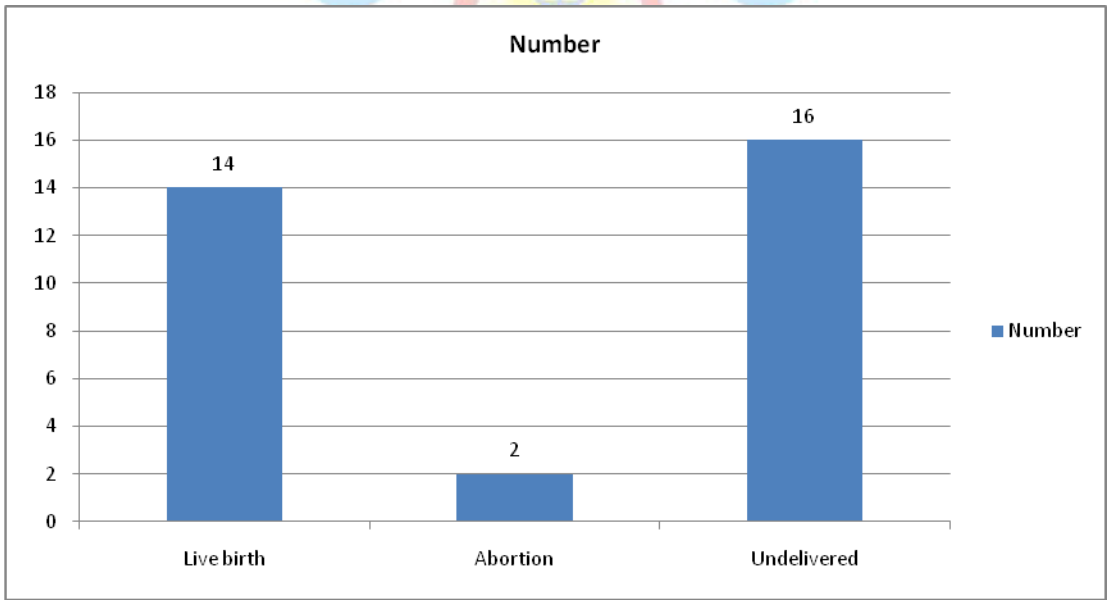
RESULTS

Table I shows that a total of 32 cases were recorded. Age group 20-24 years showed 14 cases, 25-29 years showed 10 cases and age group 30-34 years showed 8 cases. The difference among three groups was non significant (P-0.1). Graph I shows 14 cases were live birth, 2 were abortion and 16 were undelivered. The difference was non significant (P>0.05). Graph II shows 16 cases of undelivered patients, 3 were seen in 12 weeks, 2 in 24 weeks, 8 in 32 weeks and 3 in 36 weeks. The difference was significant (P<0.05). Table II shows that number of deaths recorded at immediate (3), day 1 (4), day 2 (2), day 4 (2), day 5 (1), day 10 (1) and day 30 (1). The difference was non significant (P>0.05). Graph III shows that medical condition of the patients was eclampsia (9), anemia (4), rheumatic heart disease (2), tuberculosis (1), sickle cell disease (1) and abortion (4). 10 cases were non significant. The difference was significant (P<0.05). Graph IV shows various reasons of deaths such as rupture uterus (4), retained placenta (3), DIC (7), sepsis (3), postpartum pre-eclamptic shock (4), undetermined (6), tuberculosis (1), meningitis (1), sickle cell disease (1) and rheumatic heart disease (2). The difference was significant (P<0.05).

Table I Distribution of cases in different age groups

Age group	No. of cases	P value
20-24	14	
25-29	10	0.1
30-34	8	

Graph I Pregnancy outcome



Graph II Period of Gestation in Undelivered Subjects

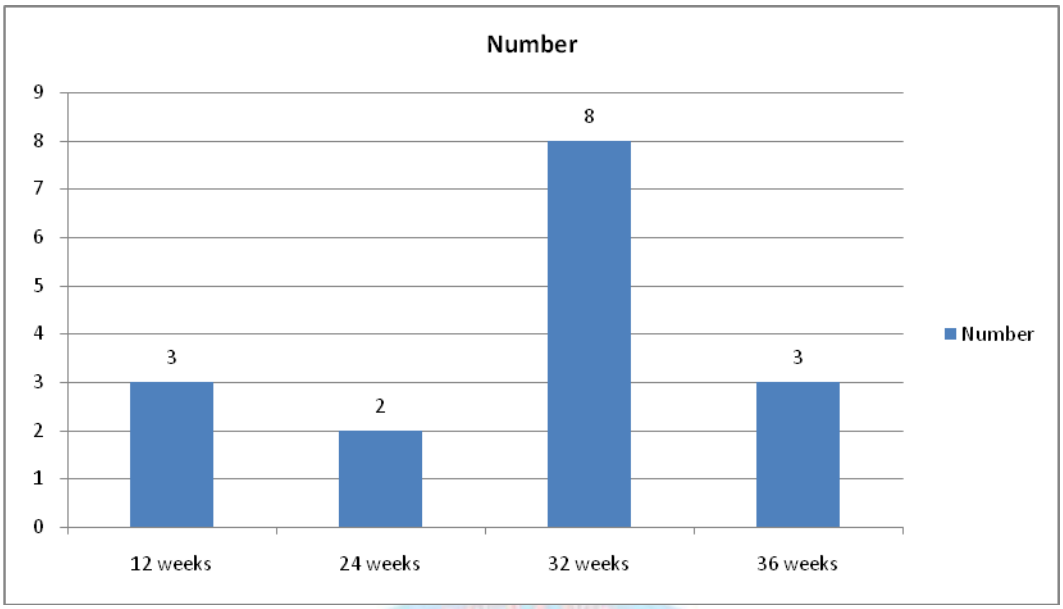
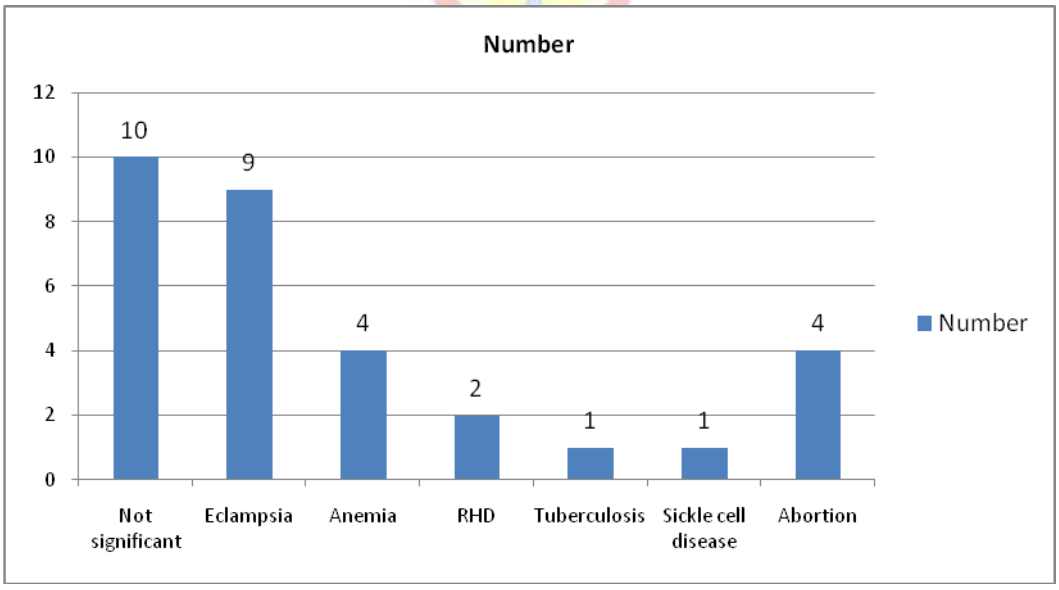


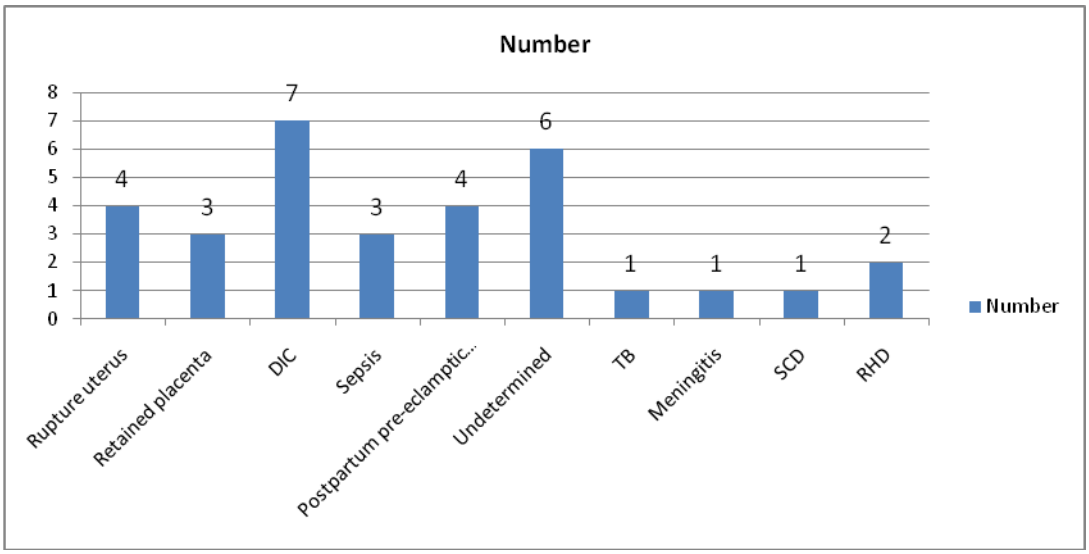
Table II Death of patients after delivery

Period	Number of deaths
Immediate	3
Day 1	4
Day 2	2
Day 4	2
Day 5	1
Day 10	1
Day 30	1

Graph III Past medical history



Graph IV Reasons of deaths



DISCUSSION

According to WHO, maternal death means "death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes". Death records remain an important source of maternal deaths. The present study was a retrospective study conducted to record factors leading to pregnancy related deaths.

We reported 14 cases of live birth, 2 of abortion and 16 of undelivered. Sengupta[5] also reported maximum of undelivered deaths in his study. In this study we found that maximum number of deaths occurred in age group 20-24 years. In study conducted by Roberts JM[6] recorded that maximum deaths occurred in 21-25 years. We found that maximum number of deaths occurred in 32 weeks followed by 36 weeks. Our results are in agreement with the results of study done by Kalur JS et al.[7] However, Venkatraman V[8] found that 5 deaths out of 10 occurred in 36 weeks of featus. In this study we found that out of live birth maximum deaths were occurred immediately after birth. Similar results were obtained in study by Kant S el.[9] We also recorded the various reasons of deaths. DIC is a consumption coagulopathy and is a key contributor to primary postpartum hemorrhage. About 50% individuals with DIC are obstetric patients having complications of pregnancy. Maximum number of disseminated intravascular coagulation cases were recorded followed by rupture uterus (4) and retained placenta (3).

CONCLUSION

Though maternal deaths rate have decreased significantly in last few years, its complete elimination is essential to ensure better care of pregnant ladies. Medical history is important to decrease the mortality rate.

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