OBJECTIVES: To estimate frequency of third trimester pregnancy adverse outcomes and to seek association of adverse pregnancy outcomes with the socio-demographic characteristics of pregnant women.

STUDY DESIGN: A descriptive cross sectional study.

PLACE & DURATION: Maternity wards of Liaquat University Hospital (LUH) Hyderabad. Study was conducted for duration of two months.

METHODOLOGY: The study subjects were all pregnant women and data including demographic data was collected through questionnaire based interviews from pregnant women, duty doctors, history records regarding pregnancy outcomes and necessary laboratory investigation reports.

RESULTS: Frequency of adverse pregnancy outcomes was 15.44%. Ante-partum hemorrhage was the most frequently occurring event (36.17%); while eclampsia was the second most commonly reported event (29.79%). Maternal age did not reveal any statistical association (p= 0.06); while educational status (p=0.05), rural residence (p=0.03), race (0.05), working status (0.02) were statistically significantly associated and low socio economic status was strongly associated with adverse pregnancy outcomes (p=0.001).

CONCLUSIONS: Ante-partum hemorrhage was the frequently reported adverse pregnancy outcome besides eclampsia, obstructed labour and preterm delivery. The maternal socio-demographic characteristics like low educational status, rural residence, low socio-economic status, women’s working status were associated with these adverse pregnancy outcomes.

KEY WORDS: Pregnancy, third trimester, outcomes, risk factors.

INTRODUCTION

It has been estimated that more than 85% of all women experience pregnancy sometime in their lives and its influence on a woman’s health and well-being is many times very profound. Ensuring healthy childbearing and satisfactory birth outcomes remain a challenge to the medical research community. Although pregnancy outcomes have improved significantly over the 20th century in the developed countries, but currently they still vary widely between women belonging to different backgrounds. The currently existing health disparities are based at least in part on differences in socio-demographic characteristics of pregnant women. Disparities may also be due to underlying differences in health before pregnancy, differences in community norms, and individual lifestyle choices and to differences in health care delivery systems as well as stage of pregnancy. The third trimester of pregnancy is a very crucial stage to decide about the pregnancy outcomes. Although pregnancy and child birth should be a peaceful occasion but if life threatening complications encounter which if inappropriately managed, could lead to maternal deaths or disability. Adverse outcomes of pregnancy and child birth are the leading cause of death and disability among women of child bearing age in most of the developing countries. The aim of our study was to estimate the frequency of third trimester pregnancy adverse outcomes or complications ie ante partum hemorrhage, eclampsia, obstructed labor and pre-term labor among women reporting in Liaquat University Hospital, Hyderabad. The study may help authorities in making policies and arranging facilities for expectant mothers accordingly.

METHODOLOGY

It was a hospital based descriptive cross sectional study conducted at Department of Gynaecology and Obstetrics units I, II and III of L.U.H Hyderabad with the objectives:

1. To estimate the frequency of third trimester adverse pregnancy outcomes/ complications at Gynaecology and Obstetrics wards at Liaquat University Hospital Hyderabad.

2. To seek association of adverse pregnancy outcomes with the socio-demographic characteristics of the pregnant women.

LUH is a tertiary health care facility which serves as the major referral center for other public, private hospitals and populations located within city and neighboring towns. The study was not sample based and all the pregnant women who have crossed twenty four months of gestation and reported in the obstetrics wards were enrolled for the study. Those who presented with ante partum haemorrhage (placenta previa and abruptio placentae), eclampsia, obstructed labor and pre-term labor admitted at Department of Gynaecology and Obstetrics Wards, Liaquat University Hospital Hyderabad were labeled as having adverse pregnancy outcomes and were undergone detailed interview.

1. Ante-partum hemorrhage: Per vaginal hemorrhage after the 24th weeks of gestation is classified as ante-partum hemorrhage. It may be due to any one of the following two reasons:

A. Placenta praevia: The placenta is said to be praevia when
all or part of the placenta implants in the lower uterine segment and therefore lies in front of the presenting part or in close proximity to the internal cervical os.

B. Abruptio Placentae: Abruptio placentae or accidental haemorrhage is defined as haemorrhage resulting from premature separation of the normally situated placenta. The diagnosis of placental abruption was made according to clinical signs and symptoms of bleeding per vagina, tense and tender abdomen, and confirmed at delivery by the local examination of placenta for separation and presence of retroplacental blood clots.

2. Eclampsia: Eclampsia is an unpredictable complication of pregnancy-induced hypertensive disorders, is characterized by sudden hypertension, proteinuria, edema, and seizures.

3. Obstructed Labor: Labor is said to be obstructed when there is no progress in spite of strong uterine contractions. This may be shown by failure of the cervix to dilate or failure of the presenting part to descend through birth canal.

4. Pre-term Labor: Preterm labor is labor that occurs after 24 weeks and before 37th week of pregnancy. The cases other than those considered as the criteria admitted in Obstetrics wards, those with gynaecological problems or unwilling women, multiple pregnancies, polyhydramnios and cases of any uterine ulcerative pathology were excluded from the study. 

After taking informed consent for participating in the study, data was collected through a pre-designed proforma. All the relevant information was kept secret and data was entered in SPSS version 16.0 in form of code words. The p-value of <0.05 was taken as the level of statistically significance.

RESULTS

The total number of patients reporting in the obstetrics wards, LUMHS was six hundred & nine. Among them, 15.43% (n=94) were those who presented with adverse pregnancy outcomes i.e ante-partum hemorrhage, obstructed labor, pre-term pregnancy or eclampsia. (Table - I).

Among ninety four cases of adverse pregnancy outcomes, ante-partum hemorrhage was the most frequently accruing event (36.17%, n=34); among cases of ante-partum hemorrhage, placenta previa was diagnosed in 22.34% (n= 21); while abruptio placentae was diagnosed in 13.83% (n= 13) cases. Eclampsia was the second most commonly reported event (29.79%, n= 28). Pre-term labor was only recorded in 10.64% of the cases registered (n= 10) and obstructed labor in 23.40% (n=22) (Table - II).

Table - III shows various socio-demographic characters of women presenting with adverse pregnancy outcomes. Women’s age more than thirty years, those belonging to Sindhi race, those who were house wives, illiterate, residing in rural settings and belonging to poor social class were all found to be more affected by pregnancy complications. The mean age of women presenting with complications was 30.06 years with standard deviation of 2.8 years around the mean. Regarding parity of the women, (47.87%, n= 45) were upto para 3; while women with parity 4-6 were 36.17% ( n= 34 ) & only 15.96% (n= 15) were para >7. (Table IV) ; parity however was not statistically associated with occurrence of pregnancy related complications.(p= 0.12).

Age of women did not reveal any statistical association with occurrence of adverse pregnancy outcomes (p= 0.06) ; while educational status (p=0.05), rural residence (p=0.03),race (0.05), working status (0.02) were all statistically significantly associated with occurrence of pregnancy complications; however low socio economic status was strongly associated with adverse pregnancy outcomes (p=0.001).

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<tr>
<th>ADVERSE PREGNANCY OUTCOMES</th>
<th>FREQUENCY</th>
<th>% WITH TOTAL PATIENTS (N=609)</th>
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<tbody>
<tr>
<td>Placenta Previa</td>
<td>21</td>
<td>3.45%</td>
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<tr>
<td>Abruptio Placentae</td>
<td>13</td>
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<tr>
<td>Eclampsia</td>
<td>28</td>
<td>4.60%</td>
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<tr>
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<td>22</td>
<td>3.61%</td>
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<tr>
<td>Pre-Term Labour</td>
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<td>1.64%</td>
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<td>Total</td>
<td>94</td>
<td>15.43%</td>
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Discussion

Complications of pregnancy and child birth are a leading cause of death and disability among women of reproductive age in most developing countries. Poor maternal health and health care not only affects women’s survival but has serious implications for the survival of their new born as well. The current study highlighted the major adverse pregnancy outcomes reported in our set up. Our study revealed antepartum hemorrhage as the most commonly reported pregnancy complication (5.58%) & abruptio placentae contributed 38.23 % of cases of APH(Table I &II) ; abruptio placentae remains a major cause of perinatal morbidity and mortality globally & of most serious concern in the developing world. As most known causes of abruptio placentae are either preventable or treatable, an increased frequency of the condition remains a source of medical concern. In a study at Lady Reading Hospital, Post Graduates Institute Peshawar, the frequency of reported cases of abruptio were 4.5% . In Pakistan, its frequency ranges from 2.2% to 7% with alarmingly high perinatal as well as maternal mortality. Another study conducted in Bangladesh reported its incidence as 4.88% .In comparison to it, our finding seems to be alarmingly high. This higher than expected frequency of abruptio placentae existing in our settings warns for careful ante-natal checkups in early pregnancies. Regarding placenta previa, our study recorded its frequency as 3.45%( Table I & II). This finding was just matching with another study in which its frequency was reported as 3.10% . Mean maternal age of presenting with placena previa in our study was computed as 30± 6.4 years; while the same was found in above mentioned study as 31.09 ± 5.38. These two figures are quite comparable. Another study revealed incidence of placenta previa as being 0.42% . Regarding incidence of eclampsia, our study reports it as 4.6% (Table I & II). Comparing it to another study where its incidence was reported to be very low(0.1%), it could have been due to the reason that our setup of study was a public sector hospital where all the referred cases were also dealt with. The same reason might be behind the high reporting rate of obstructed labor (3.61%) in our study(Table I & II) in comparison to another study showing it to be very low(0.9%) in Sudan. Regarding pre-term labor, our study found 1.64% of the registered cases as delivering pre-term (Table I &II). Boykova MV cited WHO report that across 184 countries, the rate of preterm birth ranged from 5% to 18% of babies born; therefore being a developing country, the incidence of pre-term labor does not seem to be shocking. Regarding socio-demographic risk factors for adverse pregnancy outcomes, The mean age of women presenting with complications was 30.06 years with standard...
deviation of 2.8 years around the mean; age of women did not revealed any statistical association with occurrence of adverse pregnancy outcomes (p=0.06). Recent decades have witnessed an increase in mean maternal age at childbirth in most high-resourced countries. Advanced maternal age is shown as associated with several adverse out comes. A cohort study with same objectives revealed the relative risks associated with advanced maternal age & bad outcomes in the range of 1.25-1.83. In another study, after adjusting for potential confounding variables, advanced maternal age was significantly associated with increased risk of bad pregnancy outcome. Regarding maternal parity a study conducted in Saudi Arabia pointed out that multiparous women were at a significantly higher risk of adverse outcomes including ante-partum hemorrhage; in contrast to it, our study did not reveal such association (p=0.12). This indicates a gap in reporting & it invites a more detailed study on this issue. The current study revealed a significant association of women’s residing status with adverse pregnancy out comes (p=0.03). Rural women are taken as being the most disadvantaged individuals in our country in terms of their health status and access to adequate, comprehensive and affordable health services (13). Low educational status of women was also statistically significant with bad obstetrical outcomes (p=0.05); working status of women was also associated with occurrence of pregnancy complications (p=0.02); however low socio economic status was strongly associated with adverse pregnancy outcomes (p=0.001). A study with same objectives conducted in a tertiary care teaching hospital in Karachi also endorsed our findings showing strong associations of adverse pregnancy outcomes with maternal quality of life in terms of residence, working status as well as her overall socio-economic status.

CONCLUSIONS

It is concluded from the study that a significant number of the patients (15.43%) coming to hospital are accompanied with adverse pregnancy outcomes including ante partum haemorrhage (placenta previa, abruptio placentae), eclampsia, obstructed labour and pre term labour. This is an alarming situation though most of the conditions are preventable. Besides, various maternal socio-demographic characteristics were associated with these adverse pregnancy outcomes. In order to overcome these situations appropriate strategies should be taken. Increasing the health services’ capability to anticipate & manage such situations is recommended.

REFERENCES

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