ABSTRACT

Objective: This study was conducted to determine prevalence of teenage pregnancy and frequency of maternal and fetal complications.

Design and Duration: This is a cross sectional type of prospective study started in January 2017 to December 2017. Study duration was twelve months.

Place of study: This study was carried out in Gynaecology and obstetrics unit of Fatima Memorial Hospital Lahore. This is a well-developed hospital dealing with a huge number of patients related to gynaecology and obstetrics.

Patients and Methods: This study was done on pregnant female patients. Total 216 cases were included in this study. These pregnant females belonged to different age groups. They were divided into two groups A and B. Half number of females i.e 108 below 18 years were kept in Group A and remaining half of them 108 cases with age 19-30 years were kept in group-B. All data related to the cases was documented on a proforma. This data was about age of mother, gestational age, any complication related to pregnancy such as pre-eclampsia, eclampsia, post partum hemorrhage, position of placenta, anemia related to pregnancy, urinary tract infection, intra uterine growth retardation and placenta abruptio. Despite of complications of pregnancy, mode of delivery was also recorded such as spontaneous vaginal delivery, cesarean section, instrumental delivery and assisted breech delivery. Outcome related to mother and fetus was also documented. Total hospital stay of all cases including maternal and fetal deaths was documented. Proper consent was taken from the mother for including their data in this study. Consent was also taken from the medical superintendent of hospital for conducting this study. All collected data was analyzed on Microsoft office and SPSS softwares version 2012. Data was expressed in the form of frequency tables and charts.

Results: Total 216 pregnant females were studied. These females were having different ages. Teenage mother were having age below 18 years and others were above 18 years. Mean age of patients among group A was 16.3 years and in group-B 24.8 years. Out of 108 cases in group-A 71(65.7%) experienced different types of pregnancy related complications while 37(34.3%) had no complications. Similarly from group-B 44(40.7%) females developed complications and 64(59.3%) had no complications. Perinatal mortality was seen in 11(10.1%) cases from group-A and 7(6.5%) cases from group-B. There were 21(19.4%) newborn babies with low birth weight from the group of teenage mothers and 13(12.03%) from group-B. APGAR score of group-A and B was 17 and 8 respectively. Total 19(17.6%) infants from teenage group and 4(3.7%) from other group were admitted in NICU. It was seen that mostly babies were born via cesarean in group-A while from group-B mostly mothers underwent spontaneous vaginal delivery.

Conclusion: Mothers with young age experience more complications during pregnancy as compared to those mothers with age above 20 years. Neonates of teenage mothers are usually premature and have low birth weight. From this study it was concluded that females should conceive in proper adult age so that they may have normal gestational period and minimum complications related to mother and child as well.

Key Words: Maternal complications, perinatal complications, teenage mothers

INTRODUCTION

In our society it is common custom to marry girls in young age. This is the reason of increased perinatal mortality rate and increased maternal mortality rate. In young age females experience more complications related to pregnancy and health of fetus and mother both are at risk.¹ Most of the population in our country lives in underdeveloped areas where health services are not proper and other important factor is low education level among females. That’s why mostly females during pregnancy don’t have proper antenatal visits to nearby clinic.² Complication goes on developing and fetal health deteriorates due to ignorance. Each year about 15 million teenage females give births to child. This number is highest in African countries. In developed countries this number is much low. It was seen in many studies that females with age 20-30 years have more successful pregnancy as compared to older or younger mothers. This is a safe age for conceiving.³ Most of the population in our country lives in underdeveloped areas where health services are not proper and other important factor is low education level among females. That’s why mostly females during pregnancy don’t have proper antenatal visits to nearby clinic. Complication goes on developing and fetal health deteriorates due to ignorance.⁴ Each year about 15 million teenage females give births to child. This number is highest in African countries. In developed countries this number is much low. It was seen in many studies that females with age 20-30 years have more successful pregnancy as compared to older or younger mothers.⁵ This is a safe age for conceiving. In young age females are not prepared for pregnancy physically and mentally that is the reason of increased fetal complications in these mothers. Complications related to mothers are urinary tract infections, anemia, pre-eclampsia and eclampsia.⁶ Post partum and antepartum hemorrhage, still birth, abortions and low birth weight babies are other complications of teenage pregnancy. This number is highest in African countries. In developed countries this number is much low. It was seen in
many studies that females with age 20-30 years have more successful pregnancy as compared to older or younger mothers. This is a safe age for conceiving.\textsuperscript{8} In young age females are not prepared for pregnancy physically and mentally that is the reason of increased fetal complications in these mothers. Complications related to mothers are urinary tract infections, anemia, pre-eclampsia and eclampsia. Post partum and antepartum hemorrhage, still birth, abortions and low birth weight babies are other complications of teenage pregnancy. It was also seen that teenage mothers mostly experience complications during delivery due to breach presentation of fetus or due to inability to give birth via per vaginal spontaneous route.\textsuperscript{9} Neonates of teenage mothers are usually premature and have low birth weight. From this study it was concluded that females should conceive in proper adult age so that they may have normal gestational period and minimum complications related to mother and child as well.

Instrumental delivery and cesarean section were common mode of delivery in teenage mothers. Babies born of these mothers were underdeveloped and required admission in neonatal intensive care unit.

**Patients and Methods**

This is a prospective type of cross sectional study conducted in a teaching hospital. Study was completed in one year period. This study was done on pregnant female patients. Total 216 cases were included in this study. These pregnant females belonged to different age groups. They were divided into two groups A and B. Half number of females i.e 108 below 18 years were kept in Group A and remaining half of them 108 cases with age 19-30 years were kept in group-B. All data related to the cases was documented on a proforma. This data was about age of mother, gestational age, any complication related to pregnancy such as pre-eclampsia, eclampsia, post partum hemorrhage, position of placenta, anemia related to pregnancy, urinary tract infection, intra uterine growth retardation and placenta abruptio. In our society it is common custom to marry girls in young age. Out of 108 cases in group-A 71(65.7%) experienced different types of pregnancy related complications while 37(34.3%) had no complications. Similarly from group-B 44(40.7%) females developed complications and 64(59.3%) had no complications. Perinatal mortality was seen in 11(10.1%) cases from group-A and 7(6.5%) cases from group-B. There were 21(19.4%) newborn babies with low birth weight from the group of teenage mothers and 13(12.03%) from group-B. APGAR score of group-A and B was 17 and 8 respectively. All data related to the cases was documented on a proforma. This data was about age of mother, gestational age, any complication related to pregnancy such as pre-eclampsia, eclampsia, post partum hemorrhage, position of placenta, anemia related to pregnancy, urinary tract infection, intra uterine growth retardation and placenta abruptio. Total 19(17.6%) infants from teenage group and 4(3.7%) from other

and fetal health deteriorates due to ignorance. Each year about 15 million teenage females give births to child. This number is highest in African countries. In developed countries this number is much low. Despite of complications of pregnancy, mode of delivery was also recorded such as spontaneous vaginal delivery, cesarean section, instrumental delivery and assisted breach delivery. Outcome related to mother and fetus was also documented. Total hospital stay of all cases including maternal and fetal deaths was documented. Proper consent was taken from the mother for including their data in this study. Consent was also taken from the medical superintendent of hospital for conducting this study. All collected data was analyzed on Microsoft office and SPSS softwares version 2012. Data was expressed in the form of frequency tables and charts.

**Results**

Total 216 pregnant females were studied. These females were having different age. Teenage mother were having age below 18 years and others were above 18 years. Mean age of patients among group A was 16.3 years and in group-B 24.8 years. These pregnant females belonged to different age groups. They were divided into two groups A and B. Half number of females i.e 108 below 18 years were kept in Group A and remaining half of them 108 cases with age 19-30 years were kept in group-B. All data related to the cases was documented on a proforma. This data was about age of mother, gestational age, any complication related to pregnancy such as pre-eclampsia, eclampsia, post partum hemorrhage, position of placenta, anemia related to pregnancy, urinary tract infection, intra uterine growth retardation and placenta abruptio. In our society it is common custom to marry girls in young age. Out of 108 cases in group-A 71(65.7%) experienced different types of pregnancy related complications while 37(34.3%) had no complications. Similarly from group-B 44(40.7%) females developed complications and 64(59.3%) had no complications. Perinatal mortality was seen in 11(10.1%) cases from group-A and 7(6.5%) cases from group-B. There were 21(19.4%) newborn babies with low birth weight from the group of teenage mothers and 13(12.03%) from group-B. APGAR score of group-A and B was 17 and 8 respectively. All data related to the cases was documented on a proforma. This data was about age of mother, gestational age, any complication related to pregnancy such as pre-eclampsia, eclampsia, post partum hemorrhage, position of placenta, anemia related to pregnancy, urinary tract infection, intra uterine growth retardation and placenta abruptio. Total 19(17.6%) infants from teenage group and 4(3.7%) from other
group were admitted in N.I.C.U. It was seen that mostly babies were born via cesarean in group-A while from group-B mostly mothers underwent spontaneous vaginal delivery.

(Figure-1) Pregnancy related complications in Group-A and B

(Figure-2) Frequency of normal and complicated pregnancy among females of Group-A

(Figure-3) Frequency of normal and complicated pregnancy among females of Group-B

(Table-1) Mode of delivery in both groups

<table>
<thead>
<tr>
<th>Type of Delivery</th>
<th>Group-A (%)</th>
<th>Group-B (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caesarean section</td>
<td>35</td>
<td>29</td>
</tr>
<tr>
<td>Instrumental delivery</td>
<td>62</td>
<td>68</td>
</tr>
<tr>
<td>Vaginal delivery (spontaneous)</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Breach delivery</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

DISCUSSION

Many physiological changes occur in female body during gestational period. These changes are mainly related to hematology such as increased coaguability, anemia and hypervolemia etc.10 When these changes occur beyond normal limits then they cause complications which may be lethal for baby and mother both.11 In our society it is common custom to marry girls in young age. This is the reason of increased perinatal mortality rate and increased maternal mortality rate. In young age females experience more complications related to pregnancy and health of fetus and mother both are at risk. Most of the population in our country lives in underdeveloped areas where health services are not proper and other important factor is low education level among females.12 That’s why mostly females during pregnancy don’t have proper antenatal visits
to nearby clinic. Complication goes on developing and fetal health deteriorates due to ignorance. Each year about 15 million teenage females give births to child. This number is highest in African countries. In developed countries this number is much low. It was seen in many studies that females with age 20-30 years have more successful pregnancy as compared to older or younger mothers. This is a safe age for conceiving. Most of the population in our country lives in underdeveloped areas where health services are not proper and other important factor is low education level among females. That’s why mostly females during pregnancy don’t have proper antenatal visits to nearby clinic. Complication goes on developing and fetal health deteriorates due to ignorance. Similar studies have been done in the past in other countries but in our country very little work has been done in this field. That’s why this study was conducted to collect data within our country.

According to a study done by Akinole complications in teenage mothers were studied and it was concluded that teenage mothers are at high risk of pre-eclampsia and post partum hemorrhage. Maternal mortality is also higher in teenage mothers. Total 216 cases were included in this study. These pregnant females belonged to different age groups. They were divided into two groups A and B. Half number of females i.e 108 below 18 years were kept in Group A and remaining half of them 108 cases with age 19-30 years were kept in group-B. All data related to the cases was documented on a proforma. This data was about age of mother, gestational age, any complication related to pregnancy such as pre-eclampsia, eclampsia, post partum hemorrhage, position of placenta, anemia related to pregnancy, urinary tract infection, intra uterine growth retardation and placenta abruption. In young age females are not prepared for pregnancy physically and mentally that is the reason of increased fetal complications in these mothers. Mothers with young age experience more complications during pregnancy as compared to those mothers with age above 20 years.

Neonates of teenage mothers are usually premature and have low birth weight. From this study it was concluded that females should conceive in proper adult age so that they may have normal gestational period and minimum complications related to mother and child as well. Complications related to mothers are urinary tract infections, anemia, pre-eclampsia and eclampsia. Post partum and antepartum hemorrhage, still birth, abortions and low birth weight babies are other complications of teenage pregnancy. It was also seen that teenage mothers mostly experience complications during delivery due to breach presentation of fetus or due to inability to give birth via per vaginal spontaneous route. Similar studies were also done by Tufail et al, and Lio et al in which young females were studied for pregnancy related complications and it was found that cesarean section was a common mode of delivery in such mothers as compared to mothers of slightly older age. Premature birth rate and low birth babies with immature lungs were also major complications related to neonates.

Conclusion

During pregnancy normal physiological changes occur in female body. When these changes go beyond their normal limit then complications develop. Mothers with young age experience more complications during pregnancy as compared to those mothers with age above 20 years. Neonates of teenage mothers are usually premature and have low birth weight. From this study it was concluded that females should conceive in proper adult age so that they may have normal gestational period and minimum complications related to mother and child as well. Proper developed health system and female literacy rate are major factors which determine maternal and perinatal outcome in pregnant ladies of teenage. Misbelieves related to pregnancy and lack of antenatal visits aggravate a minor problem to a major complication leading to perinatal mortality or maternal mortality.

REFERENCES


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