RISK FACTORS ASSOCIATED WITH PLACENTA PREVIA IN PATIENTS PRESENTING TO A TERTIARY CARE TEACHING HOSPITAL IN PESHAWAR

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ABSTRACT

Objectives: To identify risk factors associated with placenta previa in patients presenting to a tertiary care teaching hospital in Peshawar.

Material and Methods: This was a hospital based descriptive study, conducted at the Department of Obstetrics and Gynaecology, Khyber Teaching Hospital, Peshawar from March 2007 to July 2008. Patients who were diagnosed to have placenta previa by ultrasonography were included in the study. Data was collected using a written, structured questionnaire and analyzed using SPSS.

Results: A total of 8253 women had delivery in the study period, of whom 100 patients were diagnosed to have placenta previa. Mean age of the patients with placenta previa was 30 ± 4.66 years. 53% of patients were multigravida and 40% had previous one or more cesarean sections. A slight predominance of male fetuses was found.

Conclusions: The most important obstetric risk factors for placenta previa are advanced maternal age, multiparity and previous surgery on the uterus.

Key Words: Placenta previa, risk factors.

INTRODUCTION

Bleeding from placenta previa is one of the most acute and life threatening emergencies in obstetric practice. Placenta previa is the placenta implanted entirely or in part in the lower uterine segment. The incidence of placenta previa in pregnant women is approximately 0.3% to 0.8%. The etiology is unknown but various associations have been identified. Advanced maternal age, multiparity, previous cesarean sections and miscarriage, smoking, and cocaine use during pregnancy, male fetuses and in vitro fertilization all confer increased risk for placenta previa. Association has been shown between increasing maternal serum alpha fetoprotein values and greater likelihood of persistent placenta previa.

Placenta previa is one of the known causes of feto-maternal mortality. It triples the rate of neonatal mortality which is mediated mainly by preterm birth. Prematurity, stillbirth and early neonatal death is associated with placenta previa. The purported significance of this study is to evaluate common risk factors in pregnancies complicated by placenta previa. It will help us in developing recommendations for patient’s education during antenatal visits and to improve management of placenta previa.

MATERIAL AND METHODS

This hospital based prospective study was conducted in the Department of Obstetrics and Gynaecology, Khyber Teaching Hospital, Peshawar from March 2007 to July 2008. The total number of 100 patients were included in this study who were diagnosed with placenta previa, of all ages and parity. Those patients who presented with placental abruption, genital tract injury, and bleeding disorders were excluded. The data was entered in a preformed proforma covering the detailed history including age, parity, period of gestation, last menstrual period, previous caesarean section, miscarriage, smoking and vaginal bleeding was taken and general physical and per abdominal examination was done. Diagnosis of placenta previa was confirmed by ultrasonography. The risk factors were identified and results were analysed using SPSS version 16. Approval of hospital ethical committee was taken.

RESULTS

A total of 8253 women had delivery in the study period, of whom 100 patients were diagnosed to have placenta previa. Mean age of the patients with placenta...
and above age group 15. Cleary-Goldman J et al have observed that 30 years and above age group. Gravidity observed in our population. In our study 64% explained by increase in maternal age and high gravidity studies. This increased incidence could be partly deliveries which is higher than observed in other studies. This increased incidence could be partly explained by increase in maternal age and high gravidity observed in our population. In our study 64% of patients were of 30 years and above age group. Almost similar results were obtained by Tuzovic L et al where out of 202 patients, 127(62.8%) were of 30 years and above age group 16. Cleary-Goldman J et al have also reported that increasing maternal age is a significant risk factor for placenta previa development 16. In our study out of 100 patients 14 were primigravida, 53 were multigravida and 33 were grand multigravida. Repeated endometrial/myometrial damage is the likely cause.

In our study 40% women had previous C/section. Malik AM et al reported in their study that 50% women had history of previous C/section 19. However Hussain GA et al showed that previous c/section does not increase the risk of placenta previa 19. In our study 18% patients had history of previous miscarriage which is comparable to that reported by Davood S et al 20. Our study showed a slight predominance of male newborns. Ananth CV et al have reported almost same results 21. Malik AM et al noted that 30% patients with placenta previa were smokers and above age group. Cleary-Goldman J et al have observed that 30 years and above age group. Gravidity observed in our population. In our study 64% explained by increase in maternal age and high gravidity observed in our population. In our study 64% of patients were of 30 years and above age group. In our study 64% of patients were of 30 years and above age group. Gravidity observed in our population. In our study 64% explained by increase in maternal age and high gravidity observed in our population. In our study 64% of patients were of 30 years and above age group. Almost similar results were obtained by Tuzovic L et al where out of 202 patients, 127(62.8%) were of 30 years and above age group 16. Cleary-Goldman J et al have also reported that increasing maternal age is a significant risk factor for placenta previa development 16. In our study out of 100 patients 14 were primigravida, 53 were multigravida and 33 were grand multigravida. Repeated endometrial/myometrial damage is the likely cause.

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### Table 1: Distribution of cases of placenta previa by maternal age

<table>
<thead>
<tr>
<th>Maternal age</th>
<th>%age of cases</th>
<th>Mean±SD</th>
<th>Mean±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25 years</td>
<td>11%</td>
<td>30.09</td>
<td>4.66</td>
</tr>
<tr>
<td>25-29 years</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-34 years</td>
<td>44%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;34 years</td>
<td>20%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 2: Distribution according to gravidity

<table>
<thead>
<tr>
<th>Gravidity</th>
<th>No. of patients &amp; %ages of placenta previa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primigravida</td>
<td>14(14%)</td>
</tr>
<tr>
<td>Multigravida</td>
<td>53(53%)</td>
</tr>
<tr>
<td>Grandmultigravida</td>
<td>33(33%)</td>
</tr>
</tbody>
</table>

However no single case of smoking was found in our study.

### CONCLUSION

Women above thirty years with history of multiparity, previous miscarriages and caesarean section carry a higher risk for placenta previa and should be counseled and managed accordingly. Early recognition of placenta previa with ultrasound during the second trimester and proper monitoring can minimize the possibility of poor outcome of sudden massive bleeding.

### REFERENCES


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