Frequency of multiparity and previous caesarean section in patients with placenta previa

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Abstract

Objective. This study was conducted to find out frequency of previous caesarean section and multiparity in patients having placenta previa. Study design. It was a descriptive cross sectional study. Settings. This study was carried out at department of obstetrics and gynaecology, Nishtar Hospital Multan. Study Period. This study was carried out from April 2016 to April 2017. Subjects and Methods. Two hundred and fifty four patients were included in the study according to the inclusion criteria. The required information with age, parity and history of previous cesarean section was collected on a specially designed proforma. Whole information was analyzed through SPSS version 20. Results. In our study most of the patients were 31-40 yrs old (55.5%), followed by 20-30 yrs (37.79%). Most of the patients were multigravida (81.10%) and only (18.89%) were primigravida in our study. Majority of the patients (57.08%) were at <37wks and 62.59% were having previous caesarean section. Conclusion. Those patients with previous caesarean section who are multiparous and above thirty yrs of age constitute a high risk group for having placenta previa in next pregnancy so these high risk patients should be identified, properly counseled and appropriate steps should be taken in next pregnancy so as to optimize fetomaternal outcome.

Keywords; Placenta previa, cesarean section, multiparity.

Introduction.
Placenta previa is the placenta that gets implanted into the lower uterine segment. It can be classified as major degree in which placenta cavers the internal cervical os or can be of minor degree in which placenta though present in lower uterine segment does not cover the cervical os. Incidence of placenta previa is 4 in 1000 patients. Old age multiparity previous caesarean section are the strongest risk factors for placenta previa. Smoking, cocaine and male fetus also contribute towards placenta previa. Commonest presenting complaint for placenta previa is painless vaginal bleeding. In most of the cases bleeding is mild but occasionally can be heavy and even life threatening. Placenta previa can result in serious fetomaternal complications including maternal and neonatal mortality, IUGR, preterm delivery, antepartum and post partum hemorrhage, need for blood transfusion and emergency hysterectomy. There is a strong correlation between multiparity, previous caesarean section and placenta previa. In one local study, incidence of placenta previa was 4.2%. among 226 patients majority of the patients were multipara (8.3%) and (71%) of patients had a history of previous caesarean section. This study was conducted specially to find out frequency of multiparity and previous scars in patients with placenta previa in southern Punjab to find any geographical variation. In this way we can find out the risk factors that can be prevented and steps can be taken to reduce increasing trend of unnecessary caesarean section thus decreasing the incidence of placenta previa particularly in southern Punjab.

Material and Methods.
This study was carried out in obstetrics and gynaecology department of Nishtar Hospital Multan from April 2016 to April 2017. A total of 254 patients in reproductive age group (15-45 yrs) both primigravida and multigravida with placenta previa diagnosed on ultrasound were included in the study. Patients with placental abruption vasa previa and genital tract trauma were excluded. Permission was taken from ethical committee. The required information parity, history of previous cesarean section and demography of the patients was recorded on proforma.
Results
In our study most of the patients were 31-40 yrs old (55.51%), followed by 20-30 yrs (37.79%). Most of the patients were multigravida (81.10%) and only (18.89%) were primigravida. In our study majority of the patients (57.08%) were at < 37 wks and 62.59% were having previous caesarean section.

Table 1
Age wise distribution of cases
(n=254)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number of Cases</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>6</td>
<td>2.36</td>
</tr>
<tr>
<td>20-30</td>
<td>96</td>
<td>37.79</td>
</tr>
<tr>
<td>31-40</td>
<td>141</td>
<td>55.51</td>
</tr>
<tr>
<td>&gt;40</td>
<td>11</td>
<td>4.33</td>
</tr>
</tbody>
</table>

Table 2
Parity wise distribution of cases
(n=254)

<table>
<thead>
<tr>
<th>Gravidity and Parity</th>
<th>Number of Cases</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primigravida</td>
<td>48</td>
<td>18.89</td>
</tr>
<tr>
<td>Multipara</td>
<td>206</td>
<td>81.10</td>
</tr>
<tr>
<td>Total</td>
<td>254</td>
<td>99.99</td>
</tr>
</tbody>
</table>

Table 3
Gestational Age at the time of presentation
(n=254)

<table>
<thead>
<tr>
<th>Gestational Age at the time of presentation</th>
<th>Number of Cases</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤37 wks</td>
<td>145</td>
<td>57.08</td>
</tr>
<tr>
<td>&gt;37 wks</td>
<td>109</td>
<td>42.91</td>
</tr>
</tbody>
</table>

Table 4
History of Previous Caesarean Section
(n=254)

<table>
<thead>
<tr>
<th>History of Previous Caesarean Section</th>
<th>Number of Cases</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>159</td>
<td>62.59</td>
</tr>
<tr>
<td>No</td>
<td>95</td>
<td>37.40</td>
</tr>
<tr>
<td>Total</td>
<td>254</td>
<td>99.99</td>
</tr>
</tbody>
</table>

Discussion
Placenta previa is the placenta that gets implanted into the lower segment of uterus either completely or partially. Hemorrhage from placenta previa can be massive and can pose a threat to maternal life. Placenta previa occurs in 0.3% to 0.8% of pregnancies. There are multiple reasons for placenta previa. It is commonly associated with placenta previa in previous pregnancy, previous caesarean delivery, myomectomy scar, dilation and curettage old age and multiparity. Advanced maternal age particularly those women who are above 35yrs of age are at high risk for development of placenta previa. In our study most of the patients were 31-40 yrs old (55.51%) 37.79% patients were in age group (20-30yrs) 2.36% of patients were less than 20 yrs and 4.33% of
cases were more than 40 years old. Similar results are seen in an international study in which average age of the patients was 30.2 yrs. In a local study from, Pakistan most of the patients (64%) were 30 yrs of age. Regarding gravidity and parity most of the patients in our study were multigravida (81.10% and only (18.89%) were primigravida. Results from one international study showed most of the patients with placenta previa to be multiparous (63.7%). In a local study from Pakistan involving 100 patients 53 patients were multigravida, 33 were grand multigravida and only 14 patients were primigravida. Regarding gestational age in our study most of the patients were less than <37 wks (57.08%) and 42.91% of patients were more than 37 weeks pregnant. These results are consistent with the results of another study in which mostly patients presented between 28-34wks.

Previous caesarean section is strangly associated with abnormal placentation. A study by Begum showed the incidence of placenta previa to be 14.28% in patients with previous caesarean section. In our study 62.59% of patients were having history of caesarean section in previous pregnancies and in 95 patients (37.40%) there was no previous history of caesarean delivery. A study from Pakistan showed that 40% of woman were having history of previous caesarean section.

Conclusion.
Those patients with previous caesarean section, who are multiparous and above thirty years of age constitute a high risk group for having placenta previa in next pregnancy. So these high risk patients should be identified, properly counseled and appropriate steps should be taken in next pregnancy so as to optimize fetomaternal outcome.

References.

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