Incidence of Placenta Previa at Aswan University Hospital
One Year Study

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Abstract

Background: Bleeding from placenta is a leading cause of antepartum hemorrhage and one of the most acute life threatening obstetric emergencies.

The incidence of placenta previa increases with advancing age and higher parity, surgical history, especially of previous caesarean section for placenta previa, is linked to recurrent development of placenta previa and more importantly placenta accreta.

Methods: A list of patients that had placenta previa from January 1, 2013 to December 31, 2013 admitted to Aswan University Hospital was obtained from the medical records department, labour room and theatre records. The case notes retrieved from the Medical Records Department in the form of data relating to the age, parity, gestational age risk factors an history of abortion or history of caesarean section, method of termination of pregnancy fetal and maternal morbidity and mortality.

The type of placenta previa was ascertained from ultrasound scan findings and from findings at surgery.

Results: There were 4284 deliveries during the period under review of these 67 patients had placenta previa the age of the patients ranged from 20-40 years with average 30 years. The peak incidence of placenta previa was observed in the patients with age group ranged from 25-34 years which disagree with other studies observed that the peak incidence of placenta previa in between 20-30 years.

Conclusions: A strong association between placenta previa, placenta accreta and prior caesarean section has been documented. Because most of the risk factors is due to previous history of caesarean section.

Key Words: Placenta previa – Antepartum hemorrhage – Aswan.

Introduction

ANTEPARTUM hemorrhage is defined as bleeding from the genital tract after 28 wks of gestation until delivery. It is a grave and potentially life threatening condition which needs immediate evaluation [1].

Bleeding from placenta is a leading cause of antepartum hemorrhage and one of the most acute life threatening obstetric emergencies [8].

The incidence of placenta previa increases with advancing age and higher parity, surgical history, especially of previous caesarean section for placenta previa, is linked to recurrent development of placenta previa and more importantly placenta accreta [4].

The timing of the diagnosis of placenta previa has undergone significant changes in recent times following the common practice of early ultrasound scan for the detection of fetal abnormalities and other pregnancy complications [5].

As such, most cases are now detected antenatal prior to the onset of significant bleeding. This practice has also improved the diagnostic accuracy and enhanced intervention strategies and outcome in the management of placenta previa [6].

The classic presentation of placenta previa in painless vaginal bleeding in a previously normal pregnancy, which may be an isolated or recurrent event. The initial event usually does not occur until the second trimester. Placenta previa in also a major cause of prematurity with prompt and appropriate management of placenta previa that complication can be drastically reduced [7].

Material and Methods

A list of patients that had placenta previa from January 1, 2013 to December 31, 2013 admitted to Aswan University Hospital will compiled from the Medical Records Department, labour room and theatre records. The case notes retrieved from the...
Medical Records Department in the form of data relating to the age, parity, gestational age risk factors an history of abortion or history of caesarean section, method of termination of pregnancy fetal and maternal morbidity and mortality.

The type of placenta previa was ascertained from ultrasound scan findings and from findings at surgery.

The data will enter the computer for analysis using one proprietary statistical packages which is Statistical Package for the Social Sciences (SPSS).

Results

There were 4284 deliveries during the period under review of these 67 patients had placenta previa the age of the patients ranged from 20-40 years with average 30 years.

The peak age group was 25-34 years which accounted for 42 cases (62%).

As regards to patient's parity 10 cases (14.92%) were nulliparous and 54 cases were multiparous (80.59%), 3 cases were grandmultiparous representing (4.47%).

The gestational age at delivery ranged from 28-39wks.

History of caesarean sections were 33 cases (49.25%) history of abortion 23 cases (34.32%).

As regard perinatal and maternal morbidity and mortality, 17 cases (25.37%) delivered preterm babies, 2 cases complicated by IUFD which represents (2.98%).

Rupture uterus, 1 case (1.49%), caesarean hysterectomy 3 cases (4.47%), internal iliac artery ligation 11 cases (16.41%) maternal mortality 1 case (1.49%).

Table (1): Patients age.

<table>
<thead>
<tr>
<th>Age</th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>30</td>
<td>20-46</td>
</tr>
<tr>
<td>Peak age</td>
<td>29.5</td>
<td>25-34</td>
</tr>
</tbody>
</table>

Table (2): Patients parity.

<table>
<thead>
<tr>
<th>Parity</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nulliparous</td>
<td>10</td>
<td>14.92</td>
</tr>
<tr>
<td>Multiparous</td>
<td>54</td>
<td>80.59</td>
</tr>
<tr>
<td>Grand multiparous</td>
<td>3</td>
<td>4.47</td>
</tr>
</tbody>
</table>

Table (3): Risk-factors among the study group.

<table>
<thead>
<tr>
<th>Risk factor</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of Caesarean section</td>
<td>33</td>
<td>49.25</td>
</tr>
<tr>
<td>History of abortion</td>
<td>23</td>
<td>34.32</td>
</tr>
<tr>
<td>No risk factor</td>
<td>11</td>
<td>16.41</td>
</tr>
</tbody>
</table>

Table (4): Maternal and fetal morbidity and mortality.

<table>
<thead>
<tr>
<th>Complication</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal iliac ligation</td>
<td>11</td>
<td>16.41</td>
</tr>
<tr>
<td>Caesarean hysterectomy</td>
<td>3</td>
<td>4.47</td>
</tr>
<tr>
<td>Rupture uterus</td>
<td>1</td>
<td>1.49</td>
</tr>
<tr>
<td>Maternal mortality</td>
<td>1</td>
<td>1.49</td>
</tr>
<tr>
<td>No complication</td>
<td>51</td>
<td>76.11</td>
</tr>
<tr>
<td>Fetal*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preterm</td>
<td>17</td>
<td>25.37</td>
</tr>
<tr>
<td>Still birth</td>
<td>2</td>
<td>2.98</td>
</tr>
<tr>
<td>No complication</td>
<td>48</td>
<td>71.64</td>
</tr>
</tbody>
</table>

Discussion

The incidence of placenta previa (1.55%) observed in this study, it is low compared to 2.6% reported from Havana Specialist Hospital Lagos, however it is higher than the incidence of 0.84% reported in US manudanfodiyo University Teaching Hospital, Sokoto, Nigeria, and higher than the incidence of 0.38% reported in Israel.

The high incidence in this study is probably due to the high incidence of caesarean section rate of closure of the uterine incision, infection control factor and socio cultural and economic factors in this environment that do not allow most women to seek medical attention even when in dire need.

Grand multiprous women had the highest incidence of placenta previa with the report of other studies and its disagree with the report of this study which reported that the peak incidence of placenta previa was observed in patients with previous history of caesarean section.

The peak incidence of placenta previa was observed in the patients with age group ranged from 25-34 years which disagree with other studies observed that the peak incidence of placenta previa in between 20-30 years, it is may be due to delayed age of marriage [2].

Majority of the patients presented late with bleeding after 28 weeks of gestation probably due to high level of illiteracy, poverty. Which tends to prevent women from coming to the hospital except in life threatening conditions.
Caesarean hysterectomy was performed on patients and internal iliac ligation was done in 11 patients for control of bleeding.

One maternal mortality due to severe antepartum hemorrhage and caesarean section was done but the patient died in intensive care unit postoperative.

The low maternal mortality observed in this study may be due to the improved blood banking services of Aswan University Hospital as well as the packing system for emergency obstetric surgeries instituted by the hospital management.

There were 17 preterm babies, and 2 still birth, the preterm babies due to rapid intervention without delay to save the mother’s life and the 2 cases of still birth are due to massive ante partum haemorrhage.

**Conclusion:**

There is a strong association between placenta previa, placenta accreta and prior caesarean section has been documented. Because most of the risk factors is due to previous history of caesarean section.

**Recommendations:**

1- Try to decrease the incidence of caesarean section to decrease the recurrent CS rate because in Aswan University Hospital there is no trial of scar protocol.
2- Good infection control.
3- Good closure of the uterine incision by 2 layers not one layer.
4- Health education about the need for regular antenatal care.

**References**