Fetomaternal Outcome Following Diagnosis of Oligohydramnios at Term

SADIA BASHIR, ARIF SIDDIQ, TANVIR JAHAN

ABSTRACT

Aim: To correlate low amniotic fluid index with pregnancy outcome in terms of mode of delivery and perinatal morbidity and mortality.

Setting: Department of Obstetrics and Gynecology Nishtar Hospital Multan.

Method: Three hundred women were admitted in NHM after fulfilling the inclusion criteria.

Results: Induction of labour was done in 46.3% and emergency c/s was done in 61%. Low birth weight was found in 22% and 21% had low APGAR score (<7) at 5 min after delivery. Early neonatal death was seen in 12.3%.

Conclusion: There is increased rate of emergency cesarean section and poor perinatal outcome in patients having oligohydramnios at term.

Keywords: Oligohydramnios, amniotic fluid index, APGAR score

INTRODUCTION

Amniotic fluid provides the fetus a protective, low resistance environment suitable for growth and development. The ultrasonographic assessment of decreased amniotic fluid volume has been recognized as a predictor of adverse perinatal outcome. The incidence of isolated oligohydramnios has been reported as 24%. The presence of oligohydramnios (which is defined as an amniotic fluid index ≤5cm) has been associated with increased labour induction, emergency cesarean section, admission to the neonatal intensive care nursery and neonatal death, low APGAR score i.e., <7 at 5 min and low birth weight at risk (i.e., <2.5kg). Labour induction increases the risk of cesarean delivery, particularly for the primiparous woman with an unripe cervix.

The objective of the study was to correlate low amniotic fluid index with pregnancy outcome in terms of mode of delivery and perinatal morbidity and mortality.

MATERIAL AND METHODS

This descriptive study was carried out in the department of Obstetrics and Gynaecology Nishtar Hospital Multan. Three hundred women were admitted after fulfilling the inclusion criteria after taking the return informed consent. Demographic data, age and gestational age was obtained. These women had been scanned and diagnosed as having oligohydramnios at term and were followed for maternal outcome i.e., induction of labour, emergency cesarean section and fetal outcome i.e., low APGAR score, low birth weight and early neonatal death.

RESULTS

Total three hundred patients were included in the study and were evaluated for the impact of oligohydramnios on the maternal and perinatal outcomes. Most important parameter was booking status of the patients. Results showed that 74% unbooked when diagnosed and only 26% booked developed oligohydromnios at term. Induction of labour was done in 46.3% and emergency cesarean section was done in 61%. Neonatal birth weight were found to be significantly less in 66 infants (22%) while 63 babies (21%) had low APGAR score (<7) at five minutes after delivery. Early neonatal deaths were found in 37 babies (12.3%)
ORIGINAL ARTICLE

Table 3: Fetal complications in relation to maternal outcome

<table>
<thead>
<tr>
<th>Maternal outcome</th>
<th>Low Apgar Score</th>
<th>Low Birth Weight</th>
<th>Early Neonatal death</th>
<th>No Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Induced Labour</td>
<td>17 (12.2%)</td>
<td>13 (9.4%)</td>
<td>12 (8.6%)</td>
<td>97 (69.8%)</td>
</tr>
<tr>
<td>Emergency C-Section</td>
<td>32 (17.5%)</td>
<td>44 (24.1%)</td>
<td>18 (9.8%)</td>
<td>89 (48.6%)</td>
</tr>
<tr>
<td>Induced Labour with</td>
<td>14 (56%)</td>
<td>9 (32%)</td>
<td>7 (28%)</td>
<td>8 (16%)</td>
</tr>
<tr>
<td>Emergency C-Section</td>
<td></td>
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</tbody>
</table>

DISCUSSION

Oligohydramnios (AFI <5cm) has been found to be associated with poor perinatal outcome. Different studies both national and international have confirmed the adverse relationship of reduced AFV with poor fetal outcome. Concluding results of studies reveal poor fetal outcome associated with reduced amniotic fluid volume and to overcome them subsequent increased rates of induction of labour, with all its associated complications. The adverse outcome of pregnancies complicated by oligohydromnios not only extend to the perinatal period but goes beyond as well. Zweldling had observed that there is an increased rate of emergency cesarean section. Similar high rates were found by Casey et al,8 where C/S rate was 51%. Sriva R et al8 had 43.05% rate of cesarean section. Chandra P et al9 had even higher rate of 76.92% cesarean section. It was observed that low APGAR score was related to the amount of liquor, less liquor volume associate with low APGAR score as compared to amniotic fluid index more than 5cm 21% the patient with low APGAR score in this study.

These results are in accordance with studies of Casey et al,8 APGAR Score <7 at 5 minutes in 23%, 23.07% and 9.27% patients respectively. Casey et al,8 Chandra et al10 and Sriva R et al8 have reported 35%, 61.53% and 58.38% low birth weight rates in their studies respectively, where as in our study low birth weight was 22%. It is demonstrated that oligohydromnios was associated with increased chances of induction of labour (41%), cesarean delivery (32%), APGAR score <7 at 5 minutes (6%) and neonatal ICU admission (7%). Our study results are comparable to these results12.

CONCLUSION

In this study there is increased rate of emergency Cesarean section and poor perinatal outcome in unbooked patients compared to booked one in patients having oligohydramnios at term.

REFERENCES