

Fetomaternal Outcome Following Diagnosis of Oligohydramnios at Term

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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 development¹. The ultrasonographic assessment of decreased amniotic fluid volume has been recognized as a predictor of adverse perinatal outcome². The incidence of isolated oligohydramnios has been reported as 24%. The presence of oligohydramnios (which is defined as an amniotic fluid index ≤ 5 cm) has been associated with increased labour induction, emergency cesarean section,³ admission to the neonatal intensive care nursery and neonatal death⁴, low APGAR score i.e., <7 at 5 min⁵ 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 cervix⁶.

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

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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 oligohydramnios 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%)

Table 1: Booking status of the patients

Booking status	n	%age
Booked	78	26
Unbooked	222	74

Table 2: Outcome of the patients in relation to booking status

	Booked	Unbooked
Induced labour	60(43.2%)	79(56.8%)
Emergency C-section	27(14.8%)	156(85.2%)
Low APGAR score	16(25.4%)	47(74.6%)
Low birth weight	10(15.2%)	56(84.8%)
Early neonatal death	11(29.7%)	26(70.3%)

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Table 3: Fetal complications in relation to maternal outcome

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

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 revealed 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. Zwerdling had observed that there is an increased risk of infant loss upto 2 years in the babies to the oligohydramnios.^{13,14} Roberts showed odd's ratio 34.4 for induction comparable to 46.3% in this study.⁷ 61% of the patients in this study underwent cesarean section. Similar high rates were found by Casey et al,⁴ where C/S rate was 51%. Sriya 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, lessel 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 al⁴, APGAR Score <7 at 5 minutes in 23%, 23.07% and 9.27% patients respectively. Casey et al⁴, Chandra Pet al⁹ and Sriya 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.

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