



CODEN [USA]: IAJPB

ISSN : 2349-7750

INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187

<http://doi.org/10.5281/zenodo.4394620>
Available online at: <http://www.iajps.com>

Research Article

PREGNANCY OUTCOME IN CASES OF OLIGOHYDRAMNIOS AFTER 28 WEEKS OF GESTATION

¹Dr Nukhba Ghani Sheikh, ²Dr Beenish Jamshaid, ³Dr Mir Sanam Ijaz.

¹MBBS, Islamic International Medical College, Rawalpindi. ²MBBS, University Medical And Dental College, Faisalabad., ³MBBS, Southeast University, China.

Article Received: July 2020

Accepted: August 2020

Published: September 2020

Abstract:

Introduction: Volume of amniotic fluid can be a concern for foetal, placental and maternal pathology in fluid development or circulation. Some reports demonstrate that the amniotic fluid index [AFI] is a weak indicator for the undesirable effect of birth, but others have not verified that the adverse perinatal effect is linked with oligohydramnios.

Objective: Comparing delivery mode and neonatal result in patients with oligohydramnios [AFI < 5 cm] with a group of no-oligohydramnios [AFI 5–25 cm].

Methods: In the Department of Gynaecology and Obstetrics, Services Hospital, a possible research-based observational analysis was carried out. For 1 year, the Oligohydramnios group was composed of 100 patients with 28 weeks AFI < 5 cm gestation, and of the No-oligohydramnios group, 100 patients with AFI 5–25 cm were enrolled.

Results: During the study from 28 August 2018 to 21 September 2019 a total of 8,096 women were admitted. Among them, 100 patients were taken into the community of oligohydramnios who met the inclusion criterion. Increased operational performance [85 [85 per cent]] was observed in the oligohydramnios group, while in the no-oligohydramnios group it was 30 [30 per cent]. The neonatal result measured by Apgar score [$P < 0.003$] and admission to the Neonatal Intensive Care Unit [$P < 0.026$] was slightly different between the two parties.

Conclusion: Isolated oligohydramnios is correlated with the need for operative action in the absence of some other maternal or foetal complicating factor and adversely affects the foetal outcome as compared to the no-oligohydramnios community with usual AFIs.

Corresponding author:**Dr. Nukhba Ghani Sheikh,**

MBBS, Islamic International Medical College, Rawalpindi.

QR code



Please cite this article in press Nukhba Ghani Sheikh *et al*, *Pregnancy Outcome In Cases Of Oligohydramnios After 28 Weeks Of Gestation.*, *Indo Am. J. P. Sci*, 2020; 07[09].

INTRODUCTION:

During birth, amniotic fluid has many functions. It provides physical space for the movement of the foetus that is required for the development of muscles [1]. It allows foetal swallowing necessary for the development of the gastrointestinal tract and for the development of the lungs. It also has bacteriostatic characteristics [2].

As originally described by Phelan and others, Oligohydramnios is classified as amniotic fluid < 5 cm in 1987 [3]. Some experiments suggest that the AFI is an indicator of unfavourable results, although the correlation was not verified by other writers. This research has therefore been carried out on the relation, after 28 completed weeks of birth, of the oligohydramnios with mode of delivery and perinatal outcomes.

METHODS:

A prospective observational study was conducted in hospitals from August 28, 2018 through September 21, 2019 at the Department of Gynaecology and Obstetrics, Services Hospital. For this study, all cases available during the study met the inclusion criteria. In 100 cases with diagnosis for isolated oligohydramnios in 28 weeks of gestation, this study comprises analysis of mode of delivery and neonatal outcome. After matching age, parity and gestation period, these oligohydramnios were compared to the no-oligohydramnios group [AFI 5 to 25 cm].

The age range [< 20, 20-29 years, and < 30 years], parity [primi, bi- and grand-tri] and gestation [2 weeks interval] became the foundation for matching. We included patients with a 28 weeks gestation, AFI < 5 cm, an intact membrane, cerebral singleton pregnancy and a non-abnormal infant. We also likewise excluded women of < 28 weeks of gestation, women with broken membrane, multiple pregnancies and hypertension-induced pregnancy. Also excluded from the study were cases of infant malpresentation and congenital infant anomalies [4].

Prior to the data collection, legal clearance was sought from the Internal Ethical Review Commission. Prior to the study, each patient offered informed consent. A comprehensive history has been investigated and AFI < 5 cm was recorded in ultrasound patients [USGs]. USG, updated biophysical profile and Doppler analysis were performed for foetal surveillance. Optimal induction or organisational interference decision on mode of distribution was made as needed. For mode of delivery and perinatal performance, the

Oligohydramnios Group and the No-oligohydramnios Group were tested.

Doppler and cardiotocography carried out intrapartum screening in order to detect foetal pain signals. In the active stage of work and liquor state, artificial membrane breakup was observed. Job improvement in the partograph was noted. The delivery process, the complication intrapartum and foetal findings have been reported. At birth the baby registered Apgar score, birth weight and sex. Till discharge were witnessed neonates admitted into the ward and neonatal intensive care unit [NICU].

Statistical analysis:

Excel data were entered and SPSS Statistics for Windows Versions 17.0 analysis techniques were carried out. The characteristics of the variables were defined using frequency and percentage. To figure out the relation of categorical variable with the classes, a Chi-square test was used. The value of P was < 0.05.

RESULTS:

A total of 8,096 deliveries have been made during the analysis. 100 patients in the oligohydramnios community were included in one year of AFI < 5 cm achieved by 28 weeks of gestations and meeting the inclusion criterion. These patients were compared in the age group, parity, and gestation periods with 100 patients in the no-oligohydramnios group [AFI 5 to 25 cm]. The mode of delivery and the neonatal result were documented in both groups.

The age group 20- 29 years with a mean level \pm maternal deviation of 23.98 ± 3.89 years is 68 per cent of women with oligohydramnios. The primigravida were 58% by parity, followed by 37% by multigravidas [5]. 94% of oligohydramnios have been unbooked after the review of booking status. In > 40 weeks of gestation, maximum patient numbers [43%] of oligohydramnios were accepted.

As far as the mode of delivery was concerned, it was found that 85% had a substantially higher surgical supply in the oligohydramnios community than no oligohydramnios category. Small caesarean section [LSCS] [24 percent], followed by foetal distress [16 percent], and was the most common indication of the missing alkaline content of the USG at the time of admission. Other LSCS categories included 14 patients in the oligohydramnios Community, 3 in the previous LSCS with oligohydramnios and 5 in cephalopelvic disproportion with oligohydramnios for the second stage of labour.

DISCUSSION:

The measurement of antenatal amniotic fluid volume is known to be a beneficial instrument in assessing who is vulnerable to adverse neonatal effects. This research was therefore performed to determine the importance and the neonatal effects of oligohydramnios in the process of delivery [6]. The findings reported are equivalent to related research in adjacent and other areas of the world.

In our study, maximum number of women were in the age group 20–29 years. However, in a study carried out by Chauhan *et al.*, there was no significant difference in age with oligohydramnios. Conversely, Jagatai *et al.* reported that the incidence of oligohydramnios was more in primipara in whom it was 52%, which is comparable to the study of Jandial *et al.* and Petrozella *et al.* who showed that the incidence of oligohydramnios was 60.0% in primipara which is similar to our study [7,8]. Most of the patients [43%] with oligohydromnios were of ≥ 40 weeks of gestation. Post-dated pregnancy is a quite frequent phenomenon in our setting. We also included them in the sample in order to assess the number of oligohydromnios linked with post-pregnancy. Intrauterine delayed growth is not necessarily related to oligohydromnios. Therefore, we have included patients afflicted with intrauterine slowing development for apparent causes including hypertension-induced maternal disorders, heart failure, chronic kidney disease, vascular collagens, and anaemia [9]. In this study, labor was induced in 70% of oligohydromnios group patients, whereas only 27% underwent labor induction in no-oligohydramnios group. Sangeetha *et al.* [56%] and Guin *et al.* [56%] also found higher percentage of induction in oligohydromnios group [10]. Similarly, Casey *et al.* also found increased rate of induction [42% vs. 18%] in oligohydromnios when compared with no-oligohydramnios group [11].

Different tests of oligohydromnios-patients indicate different concentrations of LSCS compared with the non-oligohydramnios population. The LSCS average in our analysis was [85% vs. 30%]. The findings of the research conducted by Chandra *et al.* and Visvalingam *et al.* [12]. Moreover, 71 percent of females in the oligohydromnios community reported LSCS in Nazlima and Fatima [13]. The explanation for the higher occurrence in our study of caesarean section was that anhydramnios was isolated in 24 patients [24 percent]. We are generally persuaded that there are many problems associated with less spirit. May involve delays in intrauterine development, birth asphyxia due to meconium aspiration syndrome and sudden death. There are

inadequate intrapartum and suitable neonatal care services in our set-up. Therefore we interpret anhydramnios as a sign of a caesarean section in order to prevent this situation, which might have been avoided if adequate surveillance facilities had been identified.

Concerning the neonatal outcome, our study showed statistically significant low APGAR score in oligohydramnios [22% vs. 7%] when compared with no-oligohydramnios group. Similar results were observed by Nazlima and Fatima and Chandra *et al.* [14]. On the contrary, Ahmad and Munim noticed no significant differences in APGAR scores between the two groups. In the present study, there were no significant differences in birth weight of babies [P = 0.272]. Results of this strongly correlate with studies done by Alchalabi *et al.* and Gupta *et al.* Oligohydramnios were, surprisingly, found high in women with statistically important female fetuses [15]. However, the evidence available in the previous analysis was inadequate to justify this. But in fact, this could be a new field of study. Neonatal admitting in the group of oligohydramnios [P=0.026] was found in this study to be significantly higher in comparison with the group no-oligohydramnios. Many other authors Chate *et al.*, Johnson *et al.* and Sriya & Singhal also found NICU admission statistically significant [16]. However, Sangeetha *et al.* observed that in the oligohydramnios group the admission to NICU is not higher than that of the no oligohydramnios group P = 0,18]. In this study, neonatal mortality was 12 percent in Oligohydramnios community, while neonatal mortality was just 4 percent in no — Oligohydramnios party [17]. For 12% for neonatal deaths, 10% were babies of poor birth weight and all cases were unbooked. This findings refer to 9.9% of Chamberlain *et al.* and Kwon *et al.* [12%].

CONCLUSION:

Isolated oligohydramnios in the absence of any other maternal or fetal complicating factor is found to increase the operative intervention and adversely affect the fetal outcome, when compared to cases with normal AFI.

Owing to repeated use of obstetric USG, Oligohydramnios are more commonly observed in these days. High rates of pregnancy complications and elevated perinatal morbidities and mortality are associated with oligohydramnios. In this study, oligohydramnios [AFIs < 5 cm], in particular anhydramnios and foetal stress, have been associated with an increased caesarean delivery. The rate of caesarean section is rising as a result of intrapartum complications and high perinatal morbidity and

mortality. Any case of oligohydramnios therefore demands diligent antenatal assessment, and it is an area of further study to avoid single oligohydramnios without complicating factors.

REFERENCES:

1. Sangeetha K, Rao J, Ashwini AP, Kumar A. Pregnancy Outcome in amniotic fluid index less than in term low – Risk pregnancy. *IJSS* 2015;3:69-73.
2. Guin G, Punekar S, Lele A, Khare S. A prospective clinical study of fetomaternal outcome in pregnancies with abnormal liquor volume. *J Obstet Gynaecol India* 2011;61:652-5.
3. Chandra PC, Schiavello HJ, Lewandowski MA. Effect of oral and intravenous hydration on oligohydramnios. *J Reprod Med* 2000;45:337-40.
4. Visvalingam G, Purandare N, Cooley S, Roopnarinesingh R, Geary M. Perinatal outcome after ultrasound diagnosis of anhydramnios at term. *J Obstet Gynaecol* 2012;32:50-3.
5. Ahmad H, Munim S. Isolated oligohydramnios is not an indicator for adverse perinatal outcome. *J Pak Med Assoc* 2009;59:691-4.
6. Alchalabi HA, Obeidat BR, Jallad MF, Khader YS. Induction of labor and perinatal outcome: The impact of the amniotic fluid index. *Eur J Obstet Gynecol Reprod Biol* 2006;129:124-7.
7. Gupta SK, Prasad PN, Shakya YL, Sthapit R. A study on fetal weight in oligohydramnios. *JSSN* 2013;16:73-8.
8. Chate P, Khatri M, Hariharan C. Pregnancy outcome after diagnosis of oligohydramnios at term. *Int J Reprod Contracept Obstet Gynecol* 2013;2:23-6.
9. Johnson JM, Chauhan SP, Ennen CS, Niederhauser A, Magann EF. A comparison of 3 criteria of oligohydramnios in identifying peripartum complications: A secondary analysis. *Am J Obstet Gynecol* 2007;197:207.e1-7.
10. Sriya R, Singhal S. Perinatal outcome in patients with amniotic fluid index <5 cm. *J Obstet Gynaecol India* 2001;51:98-100.
11. Chamberlain PF, Manning FA, Morrison I, Harman CR, Lange IR. Ultrasound evaluation of amniotic fluid volume. I. The relationship of marginal and decreased amniotic fluid volumes to perinatal outcome. *Am J Obstet Gynecol* 1984;150:245-9.
12. Kwon JY, Kwon HS, Kim YH, Park YW. Abnormal Doppler velocimetry is related to adverse perinatal outcome for borderline amniotic fluid index during third trimester. *J Obstet Gynaecol Res* 2006;32:545-9.
13. Casey BM, McIntire DD, Bloom SL, Lucas MJ, Santos R, Twickler DM, et al. Pregnancy outcomes after antepartum diagnosis of oligohydramnios at or beyond 34 weeks' gestation. *Am J Obstet Gynecol* 2000;182:909-12.
14. Locatelli A, Zagarella A, Toso L, Assi F, Ghidini A, Biffi A. Serial assessment of amniotic fluid index in uncomplicated term pregnancies: Prognostic value of amniotic fluid reduction. *J Matern Fetal Neonatal Med* 2004;15:233-6.
15. Chauhan SP, Hendrix NW, Morrison JC, Magann EF, Devoe LD. Intrapartum oligohydramnios does not predict adverse peripartum outcome among high-risk parturients. *Am J Obstet Gynecol* 1997;176:1130-6.
16. Nazlima N, Fatima B. Oligohydramnios at third trimester and perinatal outcome: Bangladesh *J Med Sci* 2012;11:33-6.
17. Chauhan SP, Sanderson M, Hendrix NW, Magann EF, Devoe LD. Perinatal outcome and amniotic fluid index in the antepartum and intrapartum periods: A meta-analysis. *Am J Obstet Gynecol* 1999;181:1473-8.