



Prophylactic versus Therapeutic Amnioinfusion for Oligohydramnios in Labour

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Introduction

- Amnioinfusion was introduced by Miyazaki and Taylor (1983) who infused saline through an intrauterine pressure catheter in labouring women who had either variable or prolonged decelerations attributed to cord entrapment.
- Oligohydramnios is defined as where liquor amnii deficient in amount to the extent of less than 200ml at term.
- Sonographically, it is defined when the maximum vertical pocket of liquor is less than 2cm or Amniotic fluid Index (AFI) is less than 5cm. AFI between 5-8 cm is borderline oligohydramnios.
- Adequate amount of amniotic fluid is required for good outcome of labour and this is attributed to mechanical cushions of umbilical cord.
- Based on many reports, transvaginal amnioinfusion has been extended to these clinical areas (Dad, 2016).

- b) Attempts to dilute or wash out thick meconium.
- c) THERAPEUTIC amnioinfusion in patients with variable or prolonged decelerations, associated with umbilical cord compression.

Aims and Objectives

The objective of this article is to compare the effects of prophylactic & therapeutic amnioinfusion in oligohydramnios in labour.

Materials and Methods

Study design: It is a hospital based randomized trial.

Study place: Department of Obstetrics & Gynaecology, KMCH, Katihar, Bihar.

Study period :- 1st sept 2020 to 1st sept 2021 with a minimum period of 6 months follow up.

Study Population

Sample size of 240 pregnant patients attending emergency of Obstetrics and Gynaecology department of KMCH were selected. Women were divided into two groups of (120) each.

Group A

Prophylactic amnioinfusion were administered in group of patient admitted with oligohydramnios

These Include

- a) PROPHYLACTIC amnioinfusion in women with oligohydramnios, with prolonged rupture of membranes.

with prolonged rupture of membrane and attempts to dilute or wash out thick meconium.

Group B

Therapeutic amnioinfusion were administered in patients admitted with variable or prolonged decelerations of fetal heart rate associated with umbilical cord compression.

Procedure

- Transcervical amnioinfusion (done when the patients is in labour) following spontaneous rupture of membranes, an intrauterine catheter or foley’s catheter or simple rubber catheter or nasogastric tube

is introduced transcervically within the hind water.

- Fluid bottle is connected to the catheter by an infusion set. The solution is infused by gravity or infusion .
- Usually 500ml of normal saline is instilled within 30minutes followed by 500ml slowly (3ml/min).
- Amnioinfusion is stopped after infusion of 1000ml or delivery imminent or complication arises.
- In variable deceleration, a bolus amount of 250ml is instilled in 20-60 min followed by 10-20 ml/min upto 600ml or till the variable deceleration passes off.

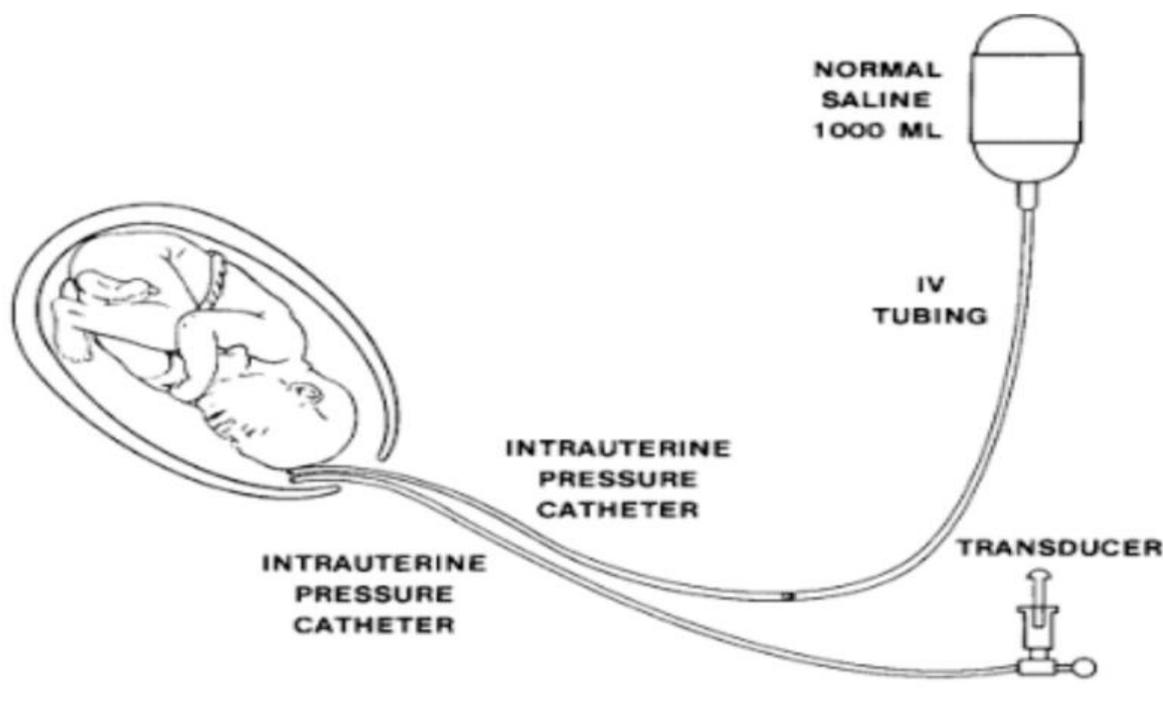
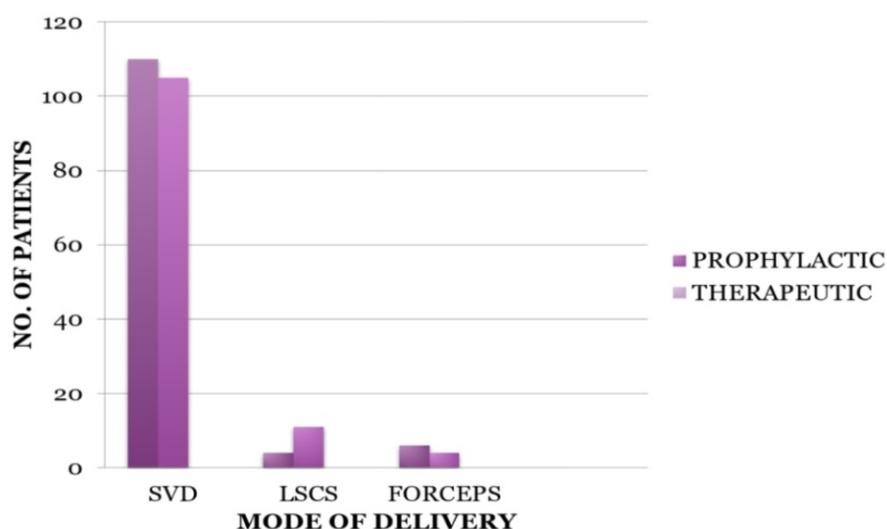


Table 1

Mode of delivery	of	Prophylactic	Therapeutic
NVD		110(91.7%)	105(87.5%)
LSCS		4(3.3%)	11(9.2%)
FORCEPS		6(5.0%)	4(3.3%)
TOTAL		120	120



Result

- 240 patients were included in the study after inclusion and exclusion criteria. 120 patients were allotted to each group.
- Proportion of vaginal delivery rates higher in both but not significant.
- No differences were found in rate of caesarean section

Table: 2 Complications associated with Amnioinfusion from a survey of 186 Obstetrical units

Complication	No. of centres (%)
Uterine hypertonus	27(14)
Abnormal fetal heart rate tracing	17(9)
Chorioamnionitis	7(4)
Cord prolapse	5(2)
Uterine rupture	4(2)
Maternal cardiac Respiratory compromise	3(2)
Placenta abruption	2(1)
Maternal Death	2(1)

Discussion

Prophylactic amnioinfusion is indicated in women with oligohydraminos, associated with prolong rupture of membrane and attempt to dilute or wash out thick meconium. Therapeutic

amnioinfusion is used in the treatment of variable or prolonged decelerations of fetal heart rate associated with umbilical cord compression.

Contraindication

- APH
- Severe preeclampsia
- Twin pregnancy
- Classical caesarean section
- Maternal medical condition – cardiac or pulmonary diseases.

Conclusion

- There appears to be no advantage of prophylactic amnioinfusion over therapeutic amnioinfusion, carried out only when fetal heart deceleration or thick meconium staining of liquor occur.
- There were no differences in caesarean section rates, perinatal outcome, NICU admission rate, apgar score at 1 and 5 min
- Prophylactic and therapeutic amnioinfusion both have definite role in decreasing the sequel of oligohydramnios when used for the correct indications.

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