between 34 – 36 6/7 weeks AOG and were given primary course of ANC; Group 3 - had history of preterm labor and given ANC prior to 34 weeks but delivered between 34 – 36 6/7 weeks AOG and given rescue course of ANC; and Group 4 - had history of preterm labor prior and given ANC prior to 34 weeks but delivered between 34 – 36 6/7 weeks AOG and not given rescue course.

**Results:** There was no significant difference in the mean Apgar score at the first (p=0.538) and fifth minute (p=0.741), prevalence of respiratory distress syndrome (p=0.201) and intraventricular hemorrhage (p=0.235) across the four groups. Prevalence of the need for surfactant was significantly highest in Group 4 (50.0%) and lowest in Group 3 (6.2%) (p=0.004) while the prevalence of neonatal hypoglycemia was significantly highest in Group 4 (80.0%) and lowest in group 1 (11.1%) (p<0.001). The benefits and adverse effects of ANC in the late preterm group should be further studied. The additional benefit of reduced need for surfactant is modest and did not affect the primary clinical endpoint of reduced risk for respiratory distress. The neonatal outcomes depending on the timing of administration of ANC (delivered within or more than seven days) did not differ significantly.

**Conclusion:** The benefits, outcomes and long term maternal and neonatal effects of ANC given in the late preterm should be further studied. Based on literature, ANC seems to be beneficial in the late preterm at 34 - 35 6/7 weeks AOG but respiratory distress at 36 weeks and early term may result from complications during the prenatal to postnatal transition period. At this age of gestation, starting 36 weeks and beyond, ANC does not seem to be beneficial anymore, given the potential risk for neonatal hypoglycemia as well. In addition, the benefit of reduced need for surfactant among those given rescue course in the late preterm seen in this study is modest and cannot yet be confirmed with the small sample size and the retrospective design of the study.

Keywords: Antenatal corticosteroids, rescue course, late preterm, respiratory distress syndrome

## PP-010 A Case of monochorionic monoamniotic twins with cord entanglement and its outcome

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**Objective:** Monoamniotic twin gestations are rare occurring 1 in 12500 births making up <1% of all twin pregnancies.The outcome of monozygotic twinning depends on when division occurs. If it occurs after 8 days of fertilization as chorion and amnion are already differentiated. The main factor associated with perinatal mortality of Monochorionic monoamniotic twins are umbilical cord entanglement, cord accidents, congenital malformations, preterm delivery, fetal loss, TTTS, congenital anomalies. We present a peculiar case of cord entanglement in monochorionic monoamniotic twins who presented to us at 34 weeks gestation with follow up had positive outcome.

**Methods:** G2P1L1 with monochorionic monoamniotic twin gestation who was under regular follow up presented to us at 34 weeks gestation in labor with scan showing Monochorionic monoamniotic twins with twin 1 in cephalic and twin 2 in breech presentation with normal interval growth scan and doppler. NST was reactive. She underwent emergency section, revealing intraoperative findings consistent with cord entanglement. Subsequent follow-up confirmed a positive perinatal outcome.

**Results:** Patient was admitted at 31 weeks for prophylactic steroid administration (4 doses dexamethasone 6mg im given 12 hours apart). Routine investigations with obstetric ultrasound done found to be within normal limits. Intraoperative findings ; lower uterine segment was well formed with clear and adequate liquor drained. Twin 1 extracted by vertex, twin 2 extracted by breech. One loop of cord was present around neck of twin 2. Hyper coiling of the cord present of about 30cm with cord entanglement with multiple true knots. Total length of the cord was about 50 cm (Figure 1). Both babies cried immediately after birth. Placenta was monochorionic monoamniotic type weighing 1 kilogram. Both babies were transferred to the Neonatal Intensive Care Unit and underwent continuous monitoring (Figure 2).They demonstrated gradual improvement, eventually being successfully weaned off respiratory support and initiated on feeding. On Day 13, they were shifted to ward (Figure 3). and were discharged on day 19.

**Fig 1-2.** Length of cord / Babies on Day-0 and 1000 grams

**Conclusion:** Monoamniotic twins are admitted at 24-28 weeks for daily fetal heart rate monitoring. The optimal surveillance strategy remains uncertain but may involve non-stress testing (NST) or assessment of biophysical profiles. Betamethasone is administered for pulmonary maturation. If fetal testing remains reassuring and no other concerns arise, delivery via cesarean section is typically scheduled between 32-34 weeks to prevent umbilical cord accidents.

Keywords: Monoamniotic twins, cord entanglement, cord accidents

## PP-011 A comparative review of guidelines on macrosomia and shoulder dystocia

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**Objective:** The aim of this study was to review and compare the most recently published influential guidelines on the diagnosis, prevention and management of fetal macrosomia and shoulder dystocia, which are both associated with adverse pregnancy outcomes.

**Methods:** A comparative review of guidelines from the American College of Obstetricians and Gynecologists, the Royal College of Obstetricians and Gynecologists, the National Institute for Health and Care Excellence, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists and the Department for Health and Wellbeing of the Government of South Australia on macrosomia and shoulder dystocia was conducted.

| | ACOG | RCOG | DHWSA |
|---|---|---|---|
| Definition-Diagnosis | Failure to deliver the fetal shoulder(s) with gentle downward traction on the fetal head, requiring additional obstetric maneuvers. Obstruction of the descent of the anterior shoulder by the symphysis pubis or impaction of the posterior shoulder on the maternal sacral promontory. | A vaginal cephalic delivery that requires obstetric maneuvers to deliver the fetus after the head has delivered and gentle traction in axial direction has failed. Head to body delivery interval ≥60sec. Impaction of the anterior or the posterior fetal shoulder behind the maternal symphysis pubis or the sacral promontory respectively. | Vaginal birth of the fetal head requiring additional maneuvers beyond routine axial traction to deliver the fetal shoulders. Head to body delivery interval ≥60sec. Impaction of the anterior or the posterior fetal shoulder behind the symphysis pubis or the sacral promontory respectively. |
| Signs of SD | "Turtle" sign. | "Turtle" sign. Failure of restitution of fetal head. Failure of shoulders descend. Difficulty with face and chin delivery. | Prolongation of face and chin delivery. "Turtle" sign. Failure of external rotation. No emerge of the anterior shoulder with routine axial traction. |
| Prevention | Labor induction not routinely recommended for suspected macrosomia. Consider elective c-section if EFW>5000g in non-diabetic women and if EFW>4500g in diabetic women. Not recommended solely due to previous SD. | Elective birth recommended at >38w in diabetic woman with normally grown fetus. Labor induction not recommended in non-diabetic women with suspected macrosomia. Consider elective c-section if EFW>4500g in diabetic women. If previous SD, mode of delivery decided by the woman and her carers. | Elective birth not recommended in non-diabetic women with suspected macrosomia. If previous SD, elective c-section not routinely recommended. Take into consideration woman's preference, previous neonatal or maternal injury and fetal size. |
| Management–First line maneuvers | Additional assistance, instruction to mother to stop pushing, McRoberts, suprapubic pressure, avoidance of fundal pressure. | Additional assistance, McRoberts, suprapubic pressure, avoidance of fundal pressure. | Additional assistance, McRoberts, suprapubic pressure, avoidance of fundal pressure, fetal rotation and excessive traction. |
| Management–Second line maneuvers | Delivery of posterior arm, Rubin, Woods Screw, all-fours position, posterior axillary sling traction | Delivery of posterior arm, internal rotational maneuvers (Woods, Rubin), all-fours position | Delivery of posterior arm, internal anterior shoulder displacement, internal anterior and posterior shoulder rotation, reverse posterior shoulder rotation, all-fours position |
| Management-Third line maneuvers | Zavanelli, abdominal rescue, symphysiotomy, cleidotomy | Zavanelli, cleidotomy, symphysiotomy, posterior axillary sling | Zavanelli, cleidotomy, symphysiotomy, posterior axillary sling traction |

**Results:** The American and the Australian College of Obstetricians and Gynecologists agree that macrosomia should be defined as birthweight above 4000-4500g regardless of the gestational age, while the National Institute for Health and Care Excellence defines macrosomia as an estimated fetal weight above the 95th percentile. According to the first two medical societies, ultrasound scans and clinical estimates can be used to rule out fetal macrosomia, although lacking accuracy. Exercise, appropriate diet and pre-pregnancy bariatric surgery are mentioned as preventive measures. It is unanimously discouraged to routinely induce labor before 39 weeks of gestation with the sole indication of suspected fetal macrosomia, but an individualized counseling should be provided. There is also agreement among the reviewed medical societies concerning the definition and the diagnosis of should dystocia with the "turtle sign" being the most frequent sign for its recognition as well as the poor predictability of the reported risk factors. In addition, there is consensus on the algorithm of shoulder dystocia management with McRoberts technique suggested as first-line maneuver. Moreover, all guidelines agree that appropriate staff training, thorough documentation and time keeping are crucial aspects of