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Case Report

Dealing with Shoulder Dystocia During Child Birth

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ABSTRACT

Shoulder dystocia is an obstetric emergency in which gentle downward traction of the fetal head does not lead to delivery of shoulder and additional obstetric maneuver are required to deliver the fetal shoulders. This can cause neonatal brachial plexus injuries, hypoxia and maternal trauma, including damage to the bladder, anal spinchter, rectum and postpartum haemorrhage. Although fetal macrosomia, prior shoulder dystocia,[3] excessive weight gain during pregnancy, diabetes mellitus, advanced maternal age, prolonged 2nd stage of labor and oxytocine labor induction increase the risk of shoulder dystocia, most cases occur without warning.[5] when shoulder dystocia occurs it should be vocally announcing that dystocia is happening, summoning extra assistance, keeping track of the time from delivery of the head to full delivery of the neonate, and communicating with the patient and health care team are helpful. calm and thoughtful use of maneuvers such as suprapubic pressure, knee to chest (McRoberts maneuver), internal rotation and delivery of posterior shoulder will almost always result in successful delivery. Labor and Delivery teams should always be prepared to recognize and treat this emergency.[3]

KEYWORDS

• Shoulder dystocia • Birth asphyxia • Prolonged labor • Augmentation of labor

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INTRODUCTION

Shoulder dystocia is defined as a vaginal cephalic delivery that requires additional obstetric manoeuvres to deliver the fetus after the head has delivered and gentle traction has failed to deliver the shoulders. An objective diagnosis of a prolongation of head-to-body delivery time more than 60 seconds has also been proposed but these data are not routinely collected. Shoulder dystocia occurs when either the anterior or less commonly the posterior, fetal shoulder impacts on the maternal symphysis, or sacral promontory, respectively.[4]

There is a wide variation in the reported incidence of shoulder dystocia. Studies involving the largest number of vaginal deliveries (34800 to 267228) reported incidence between 0. 58% and 0. 70%.[4]

RISK FACTORS

Risk factors for shoulder dystocia include fetal macrosomia, prior shoulder dystocia, and pre-existing or gestational diabetes mellitus. Other risk factors include maternal obesity, excessive maternal weight gain during pregnancy,[3,2] oxytocine labor induction, prolonged second stage of labor and operative vaginal delivery (forceps or vacuum).[5] however, these are poorly predictive of shoulder dystocia. There are no accurate models to predict or prevent shoulder dystocia.[3]

CASE REPORT

Mrs. X a 27 years old multigravida (G3P2L1D1), full term (38+2) pregnancy came to hospital on 18/9/22 at 8:15am, with complain of labour pains.

She had history of previous chid deceased at the age of 1 yrs due to known cause. She had no history of chronic disease and previous surgery. She had more than 4 ANC visit in this pregnancy and she was having her ANC visit in MLCU OPD. Both td dose covered and she has regularly taken tab. Iron folic acid and calcium.

ON EXAMINATION

Mother was assessed by obstetrician along NPME at 8:30am. Her vitals were in normal range. Her height was 5 feet 2 inch and weight is 75 kg at the time of admission.

P/A- term/cephalic, SFH-36 cm, contractions were 3 in 10 minutes for 30 second on palpation moderate contraction. FHR-140 beats for 1 minute.

P/V- cervix 6cm dilated, 60-70% effaced, vertex-2, membrane intact show present, pelvis was adequate.

Advice given for spontaneous progress of labour, mother was shifted to the labour room along with birth companion. FHS was monitored in every 15 minutes, motivated mother for hydration, mobilization and bladder care.

INVESTIGATIONS

BP - 110/86 mm of hg, pulse - 72/min, respiration - 16/min, viral markers-negative, blood group - O+ve, haemoglobin-9 gm/dl, urine (albumin, sugar) - Nil, USG findings – cephalic presentation, liquor adequate, FHR 148 beat per minute, estimated fetal weight - 3540 gm.

CONTINUOUS CARE

Mother was supported by midwifery care throughout birthing process. Partograph was started in active labour and maintained. Back massage was given to relieve back pain. Help her to do antenatal exercises (lunges, squats).

At around 9:30am mother had urge to push. P/V due at 12:30pm. but because mother had an urge to push so P/V was performed to check cervical dilation and her cervix was fully dilated and bag of membrane intact and station still in -2.

Till 11 am baby was not delivered and due to prolonged 2nd stage of labour decision was made by obstetrician for augmentation of labour with 2. 5 unit oxytocin in 500ml normal saline at the rate of 16 drops/minute. Frequency of contractions was increased i.e. 4 contractions in 10 minute for 45 seconds. Non pharmacological methods were applied to relieve pain like back massage, hip squeeze, walking etc.

At 11:32am membranes ruptured liquor was clear. FHS was immediately taken it was 134bpm and continuously monitored in every 5 minutes for 1 minute.

At 11:53 am baby's head delivered spontaneously but restitution was arrested. Gentle traction was given in downward direction to deliver the shoulders of baby till

1 minute baby's shoulder not delivered. Turtle sign was there and shoulder dystocia was noticed immediately at 11:54am.

As shoulder dystocia was noticed decision was made to deliver baby quickly. Immediately (call for help). I stopped oxytocin drip immediately called the obstetrician and paediatrician. Newborn Resuscitation corner was ready. Condition was explained to mother and encouraged her to cooperate. Helped mother in McRoberts position and McRoberts manuevor started at 11:55 am again tried to deliver baby's shoulder with gentle downward traction and motivated mother to push hard during contraction.

At 11:56 am baby's anterior shoulder was delivered through McRoberts maneuvor and whole trunk was delivered by lateral flexion. Baby was immediately placed on mothers abdomenand back was stimulated by rubbing but baby not cried. Immediately cord cut and startednewborn resuscitation followed by positioning, drying after that baby was handed over to paediatrician for positive pressure ventilation.

After delivery of baby 10 unit oxytocin was given immediately and placenta was delivered with control cord traction with intact membrane. Perineum was checked for tear, 2nd degree tear wasnoticed and stitched with consent. Uterus well contracted, no post partum haemorrhage was noted estimated blood loss was 300ml. Mother was kept in observation for 2 hours in labour room.

Baby had weak cry after 5 minutes, APGAR score at birth - 4/10, at 1min-6/10, at 5 min - 7/10. Heart rate - 152/min, respiration-62/min, weight was 3200 gm. Due to non availability of NICU in hospital decision was made by paediatrician to refer baby to higher centre for further management.

After 2 hours mother general condition was stable uterus was well contracted, BPV - normal, BP - 110/70, pulse - 68, respiration - 16/min. Mother shifted to PNC ward for routine care. Mother discharged after 3 days of delivery. Baby was kept under observation and discharged after four days from higher facility. Tab. Cefexime 200 mg BD was prescribed for 5 days, tab iron and calcium for 6 months with iron rich diet, advised. Motivated for adaptation of family planning methods and follow up was advised after one week.

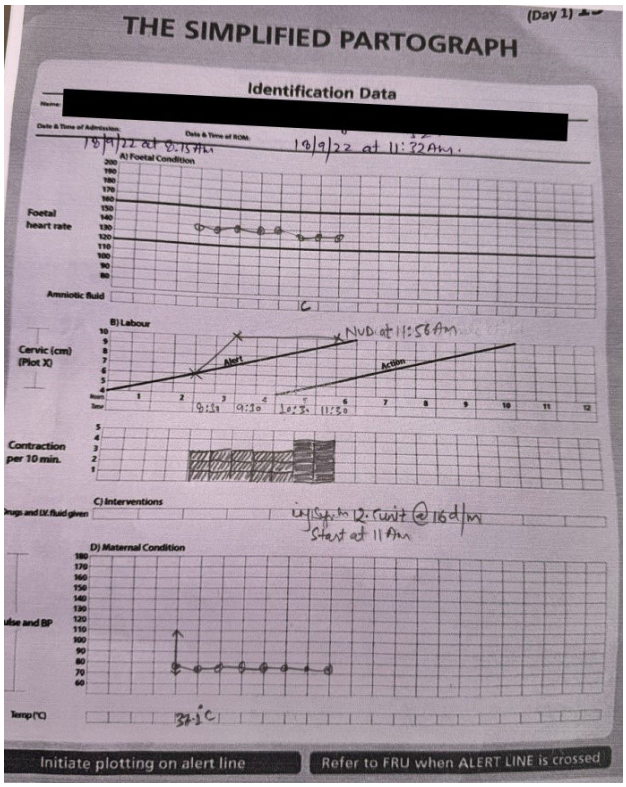


Fig. 1: Partograph shows prolonged second stage of labor

DISCUSSION

Shoulder dystocia is an unpredictable incidence during labour, while some risk factors are associated with shoulder dystocia which leads to maternal and neonatal morbidity. This incidence requires immediate and skilled full action to prevent maternal and neonatal morbidity. As it has been mentioned in previous literature that the intrapartum condition may signal the possibility of impending shoulder dystocia include a prolonged second stage of labor, failure of the fetal head to descend, and need for the operative vaginal delivery of the fetal head.[1] And in the above case mentioned that mother having augmentation of labour with 2.5 unit oxytocin due to prolonged second stage of labour total duration of second stage of labour was 2 hr 36 minutes which result into shoulder dystocia. Birth asphyxia also occurred which is the complication of shoulder dystocia.

Shoulder dystocia is an obstetric emergency requiring early identification, preparation and proper management by the obstetric team members. This condition not only require to deliver baby quickly, but also use a careful and calm approach to decrease the risk of injury to the mother and neonate.

CONCLUSION

This case report of women who had presented with 38+2 wks of gestation with uneventful antenatal period. Eventually labour was complicated by prolonged second stage of labor, shoulder dystocia and birth asphyxia. Above case report concludes that intrapartum evaluation, timely identification and calm and thoughtful use of release maneuvers (McRobert, suprapubic pressure, internal rotation, delivery of posterior arm or shoulder) can result in successful delivery and prevent serious complication to mother and neonates.

Remember, any case of shoulder dystocia occur with no readily identified risk factors![6]

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