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Review Article

Shoulder dystocia : Impaction of Shoulders Behind The Pelvic Bone

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Abstract

Background : Shoulder and cervical dystocia is unpredictable and unpreventable obstetric emergency. Shoulder dystocia occurs when either the anterior or posterior fetal shoulder impacts on the maternal sacral promontory which leads to difficult delivery of shoulders. There are numerous causing factors which leads to difficult delivery of shoulders. This topic deals with its various predisposing factors ,prevention , its management with the help of maneuvers, nursing management and its complication to the health of mother as well as baby.

Keywords : shoulder dystocia, fetal macrosomia, anencephaly

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Dystocia

Dystocia comes from the Greek "dys" meaning "difficult, painful, disordered, abnormal" + "tokos" meaning "birth."

- The term shoulder dystocia is defined to describe a wide range of difficulties encountered in the delivery of shoulders.
- Shoulder dystocia is a rare emergency that can happen during the end of the second stage of labour.
- Shoulder dystocia happens when baby's head has been born, but one of her shoulders becomes stuck.

Predisposing Factors

- Fetal macrosomia, Diabetes.
- Midpelvic instrumental delivery (more following ventouse than forceps)
- Multiparity, Obesity, Anencephaly, Fetal ascites.
- Normally when mother start pushing, baby is looking away from pubic bone towards back.
- Usually, after baby's head is born, her head and body will turn sideways.
- This allows her shoulders to pass comfortably through pelvis and for her whole body to be born.
- With shoulder dystocia, her shoulder gets stuck behind pubic bone.
- Baby must be born fairly quickly to make sure she continues to get enough oxygen.
- While baby is stuck in vagina, the umbilical cord is squashed, so she has less oxygenated blood reaching her.

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- Meanwhile, her lungs are still compressed, so she can't get oxygen that way either.
- Doctor and midwife will have studied and practiced ways to help baby out as fast as possible, while avoiding injury to baby.

Prevention

- In case of gestational diabetes, good treatment can reduce the risk.
- Having well-trained doctors and midwives to hand does improve the outlook when shoulder dystocia occurs.
- It's important that the midwiferecognizes the signs of when it's happening, and quickly takes the right action.
- Hospitals have practice drills, to ensure that all of the doctors and midwives act immediately and know what to do.
- Be ensuring that staff should be prepared to deal with shoulder dystocia.
- If in case of home birth, midwife will still be able to deal with shoulder dystocia.
- Most babies with shoulder dystocia are born safely by helping the mother into the right position and helping the baby out with an episiotomy.

Management

Procedures

A number of labor positions and/or obstetrical maneuvers are sequentially performed in attempt to facilitate delivery at this point, including:

Step I

- Head and neck should be grasped and taken posteriorly while supra-pubic pressure is applied by an assistant slightly towards the side of fetal chest.
- This will reduce the bi-sacromial diameter and rotate the anterior shoulder towards the oblique diameter. If it fails proceed to next step.

Step II

Mcroberts Maneuver

- The McRoberts maneuver is employed in case of shoulder dystocia during childbirth and involves hyperflexing the mother's legs tightly to her abdomen.
- This widens the pelvis, and flattens the spine in the lower back (lumbar spine).
- If this maneuver does not succeed, an assistant applies pressure on the lower abdomen (supra-pubic pressure), and the delivered head is also gently pulled.
- The technique is effective in about 42% of cases.

Step III

Woods' Screw Maneuver

- General anesthesia administered.
- The posterior shoulder is rotated to anterior position (180 degree) by screwing movement.
- This is done by inserting two fingers in the posterior vagina.
- Simultaneous suprapubic pressure is applied.
- This helps easy entry of the bisacromial diameter into pelvic inlet.
- If it fails proceed to next step.

Step IV

Extraction of the Posterior Arm

- The operator's hand is introduced into the vagina along the fetal posterior humerus.
- The arm is then swept across the chest and thereafter delivered by gentle traction. If this fails, baby is likely to be dead by this time.

Step V

Cleidotomy

- One or both clavicles may be cut with scissors to reduce the shoulder girth.
- This is applicable to a living anencephaly baby as a first choice or in a dead fetus.

Jacquemier's Maneuver

- (It is also called Barnum's maneuver) or
- Delivery of the posterior shoulder first, in which the forearm and hand are identified in the birth canal, and gently pulled.

Nursing Management

1. Continuously evaluate labor curve evaluating cervical dilation, effacement and fetal descent.
2. Identification by evidence of turtle sign- fetal head descends down with pushing and then rescinds back to original position when pushing is done.

Prevention is the key because shoulder dystocia is difficult to predict.

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- v Early identification and treatment of gestational diabetes mellitus.
- v Good diabetic control for patient with insulin dependent diabetes mellitus.
- v Recorded estimated fetal weight measurement
- v Prevent postdated deliveries
- v Prevent abnormal progression of labor.
- v Prevent excessive maternal weight gain.

Most effective treatment is

- Recognizing that delivery of shoulders will be difficult.
- Avoiding excessive fundal pressure or downward traction on fetal head.

Anticipation with plan of action

- o Utilize available personnel.
- o Step stool at the bed side to allow for appropriate supra-pubic pressure.
- o Have resuscitation equipment and personnel readily available.
- o Perform appropriate nursing procedures.
- o Continue fetal monitoring after the fetal head is delivered to ascertain time between delivery of head and delivery of body.
- o "ALARMER" redirects here.
- o Management of shoulder dystocia has become a focus point for many obstetrical nursing units in North America.
- o A common treatment mnemonic is ALARMER
- o Ask for help. This involves requesting the help of an obstetrician, anesthesia and pediatrics for subsequent resuscitation of the infant.
- o Leg hyper flexion (McRoberts' maneuver)
- o Anterior shoulder disimpaction (pressure)
- o Rubin maneuver
- o Manual delivery of posterior arm
- o Episiotomy
- o Roll over on all fours
- o The advantage of proceeding in the order of ALARMER is that it goes from least to most invasive, thereby reducing harm to the mother in the event that the infant delivers with one of the earlier maneuvers.

Complications

For the baby, risks include:Injury to the nerves of the shoulder, arms and hand. This may cause shaking or paralysis. In most cases, the problems go away in 6 to 12 months.

- o A broken arm or collarbone.
- o Lack of oxygen. In the most severe cases, which are rare, this can cause brain damage and even death.

Complications for the mother include :

- o Heavy bleeding after delivery
- o Tearing of the uterus, vagina, cervix or rectum
- o Bruising of the bladder.

References

01. Spong CY, Beall M, Rodrigues D, Ross MG. An objective definition of shoulder dystocia: prolonged head-to-body delivery intervals and/or the use of ancillary obstetric maneuvers. Obstet. Gynecol. 86(3), 433-436 (1995). [PubMed] [Google Scholar].
02. Acker D., Sachs B., Friedman E. Risk factors for shoulder dystocia. Obstet Gynecol 1985;66:762-768.
03. Baskett TF, Allen AC. Perinatal implications of shoulder dystocia. Obstet. Gynecol. 86(1), 14-17 (1995). [PubMed] [Google Scholar]
04. Dutta DC. Textbook of obstetrics. 6th edition. Published by New central book agency. p-406,407.2004.
05. Bruner JP, Drummond SB, Meenan AL, Gaskin IM. All-fours maneuver for reducing shoulder dystocia during labor. J. Reprod. Med. 43(5), 439-443 (1998).
06. Dajani NK, Magann EF. Complications of shoulder dystocia. Semin. Perinatol. 38(4), 201-204 (2014).