SHOULDER DYSTOCIA

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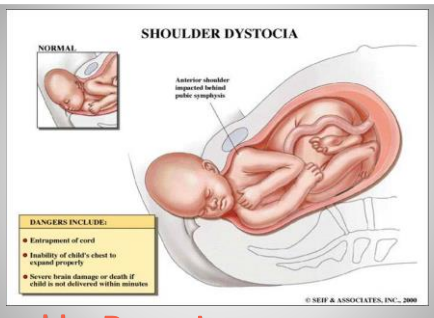
- Occurs during the second stage of labor, once the fetal head has been delivered
- Baby's anterior shoulder becomes trapped under the maternal pubic bone; preventing further descent & birth
- Posterior shoulder can become trapped on the sacrum
- Prolonged head-to-body delivery time (>60 seconds)

Definition of Shoulder Dystocia



Shoulder Dystocia

Definition of Shoulder Dystocia

- Delivery that requires additional obstetric maneuvers following failure of gentle downward traction on the fetal head to effect delivery of the shoulders
- 0.5-1.5% of births affected in the U.S.
- Significant amount of Obstetrical malpractice suits; second only to neurologic damage due to birth asphyxia

Risk factors

- Occurs suddenly and usually unexpectedly
- No real accurate prediction or prevention available
- Prior history of Shoulder Dystocia
- Fetal macrosomia
- Maternal obesity
- Multiple gestation
- Diabetes
- Multiparity

Risk factors

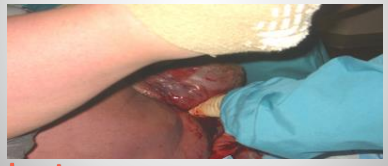
- Short maternal stature
- Post-term birth
- Abnormal pelvic structure
- Prolonged active phase of first stage of labor
- Prolonged second stage
- Mid pelvic operative vaginal delivery
- Male fetal gender

Diagnosis

- True diagnosis–occurs during birth
- Normal pushing efforts and maneuvers fail
- "Turtle sign"

Turtle sign

- Fetal head retracts back against the mother's perineum after it emerges from the vagina
- The baby's cheeks bulge out, resembling a turtle pulling its head back into its shell
- Retraction of the fetal head caused by the baby's anterior shoulder being caught on the back of the maternal pubic bone, preventing delivery of the remainder of the baby



Management

- Fetus compromised due to cord compression
- Act quickly
- Call for help
- Assign roles
- Remain calm and organized

Maneuvers

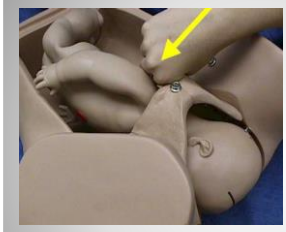
- Stop pushing/reassurance/support
- McRobert's
- Rubin
- Gaskin
- Episiotomy
- Wood's Screw
- Delivery of posterior arm
- Zavanelli

McRobert's maneuver

- Sharp ventral rotation of both maternal hips brings the pelvic inlet and outlet into a more vertical alignment, facilitating delivery of the fetal shoulders

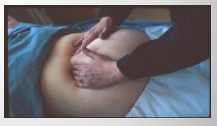
Rubin technique–Suprapubic pressure

- This tends to nudge the shoulder into a more oblique orientation, which in general provides more room for the shoulder.
- Rubin technique in which fingers, a palm, or fist are applied in an oblique manner posterior against the anterior shoulder in a somewhat lateral direction (toward the direction of the face)



Rubin technique–Suprapubic pressure

- Avoid overzealous traction and pressure on the fundus, as this will only increase the impaction
- Danger of further entrapment, uterine rupture, hemorrhage or fetal injury

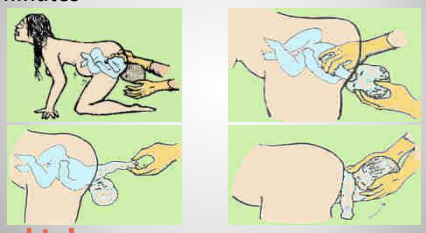


Fundal pressure and traction

- Get the woman into a hands and knees position–this will also change the diameters of her pelvis, though is may be a bit difficult with dense epidural anesthesia
- Average time to move mother & complete delivery is 2–3 minutes

Gaskin's maneuver

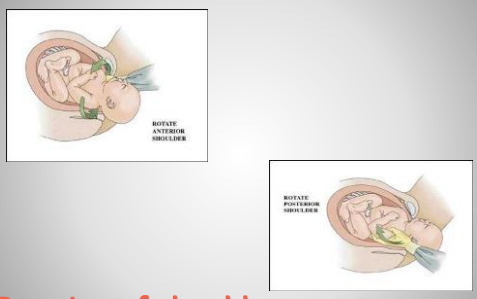
- Average time to move the mother into this position and complete delivery was2-3 minutes



Gaskin's maneuver

- **Wood's Screw maneuver** involves the progressive rotation of the posterior shoulder in corkscrew fashion to release the opposite impacted *anterior* shoulder. In its classic description, pressure is applied on the posterior shoulder's anterior surface
- **Rubin's maneuver** involves pushing on the posterior surface of the posterior shoulder. In addition to the corkscrew effect, pressure on the *posterior* shoulder has the advantage of flexing the shoulders across the chest. This decreases the distance between the shoulders, thus decreasing the dimension that must fit out through the pelvis.

Rotation of shoulders



Rotation of shoulders

Zavanelli maneuver

- Also named cephalic replacement
- Consider Terbutaline
- Typically instituted when conventional maneuvers have failed to alleviate a shoulder dystocia
- Followed by immediate Cesarean delivery

Fetal complications

- Death
- Severe neurologic damage (hypoxic-ischemic encephalopathy)
- asphyxia
- Nerve damage-brachial plexus
- Fracture of clavicle or humerus

Maternal Complications

- Uterine atony
- Infection
- Uterine rupture
- Hematoma
- Bladder atony
- Cervical, vaginal or perineal lacerations
- Symphysis pubis damage

Post care

- Resuscitation of newborn if needed
- Assessment of newborn
- Assessment of mother
- Debriefing (mother/staff members)
- Documentation

Simulations versus real time

- How would your unit handle a shoulder dystocia?
- A: always performs well, protocol clear & easy to read/follow, distinct roles everytime, communication clear & concise
- B: unit usually performs well, depends on which members are present, some teams perform better than others
- C: unit usually does not perform well, responds with chaos & is unorganized, communication poor

Resources

- Dunlap, M.M. (2009, March). Labor Complications...Shoulder Dystocia. *Growing Up With Us*, 13(3), 1-4.
- https://hstm.mygnosis.com (August 2013)
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