Shoulder Dystocia

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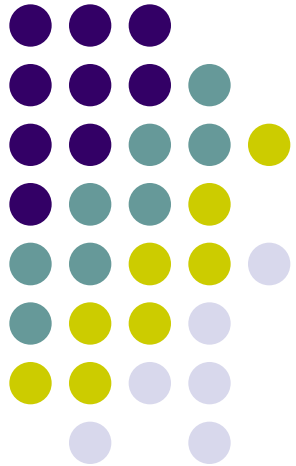


Objective(s)

- To review the technical maneuvers for relieving a shoulder dystocia
- To review documentation needs
- To review when assistance from Obstetricians should be considered

Contents

- Call for Help
- Maneuvers
  - McRoberts
  - Suprapubic Pressure
  - Rubin’s I and II
  - Wood’s Screw and Reverse Wood’s Screw
  - Posterior Arm
  - Gaskin
  - Other
- Documentation
- Obstetrician support

Help

- Call for Additional Nursing Support Immediately
  - Know who is/ask who is OB on call
- Need for extra nursing imperative
  - Documentation
  - Timing (imperative to know time on perineum)
  - Supplies and medications
  - IV access…
- NICU maybe needed for initial assessment of neonate
- If support not forthcoming then may need to call Code White

Maneuvers

- Communicating with the patient needs to occur to optimize maneuver success
- Order does not matter
- Each maneuver should be given 30-60 seconds to relieve the dystocia before the next maneuver attempted
- Somebody keeping time
  - Clocks are behind us

First things First

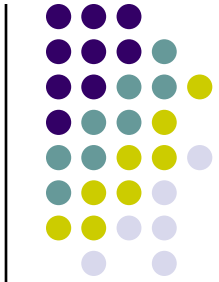
- Restitution of the Head
- Use fingers to quickly identify chest and restitute head appropriately to avoid rotation >90 degrees

Not a Maneuver

Pulling Harder

- If you are applying more force then usual
  - STOP
  - Start actual dystocia maneuvers
  - Otherwise you go from ~49 Newtons, to 69 Newtons, and quickly to 100 Newtons
    - Increase risk of fetal injury

External Maneuvers

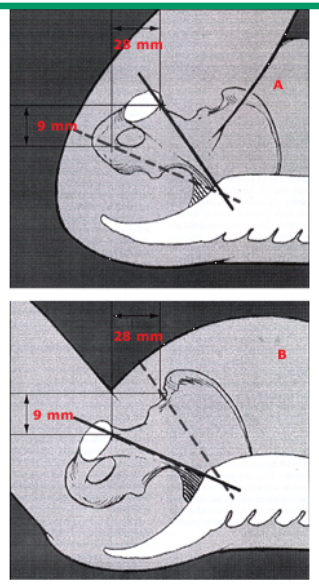


- McRoberts
- Suprapubic Pressure
- Gaskin
- Rubin I

McRoberts

- Flexing Maternal Hips = thighs onto abdomen
- Increases inlet diameter
- Decreases the lumbrosacral lordosis
- Relieves 40% of shoulder dystocias

Effect of McRoberts positioning relative to lithotomy position

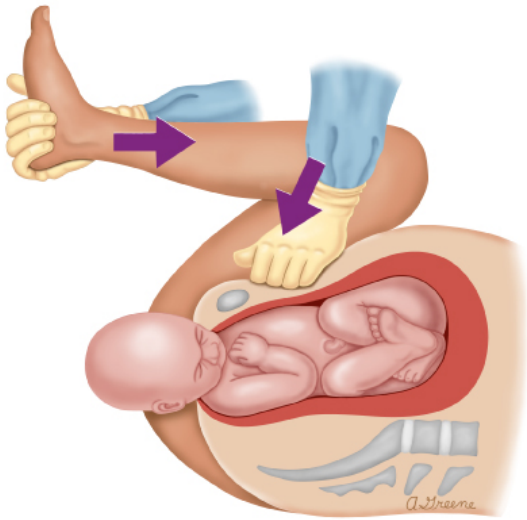


A: The patient's legs have been hyperflexed by assistants. The 16 degree rotation for a 10.5-cm obstetric conjugate (ideally) moves the symphisis pubis 9 mm anteriorly and 28 mm in a cephalad direction. B: Lithotomy position.

Suprapubic Pressure

- Pressure to the anterior shoulder from the posterior direction
- Requires direction from the delivering physician
- In conjunction w/ McRoberts relieves 50% of dystocias

McRoberts maneuver and suprapubic pressure



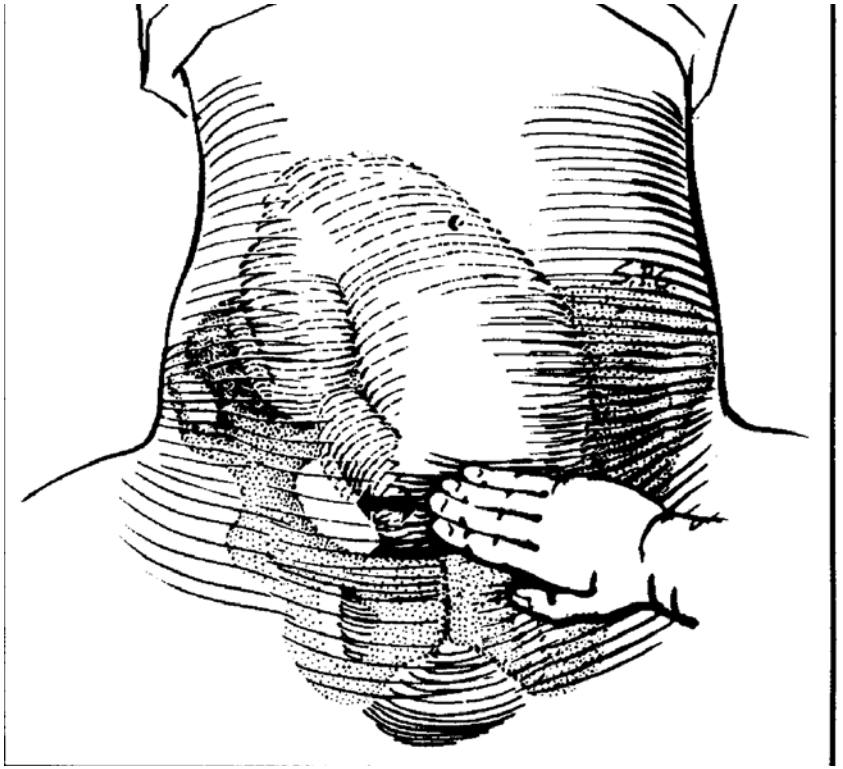
An assistant applies pressure suprapubically with the palm or fist, directing the pressure on the anterior shoulder both downward (to below the pubic bone) and laterally (toward the baby's face or sterum), and in conjunction with the McRoberts maneuver. Suprapubic pressure is supposed to adduct the shoulders or bring them into an oblique plane, since the oblique diameter is the widest diameter of the maternal pelvis. It is most useful in mild cases and those caused by an impacted anterior shoulder.

Gaskin

- Rolling to “All Fours”
- SAFE, RAPID, EFFECTIVE
- May get a full extra 10-20 mm of the pelvic outlet
- Anterior shoulder dislodges
  - Could still release Posterior shoulder first if that is “free”

Rubin I

- Rock the fetus' shoulders from side to side once or twice by pushing on the mother's lower abdomen



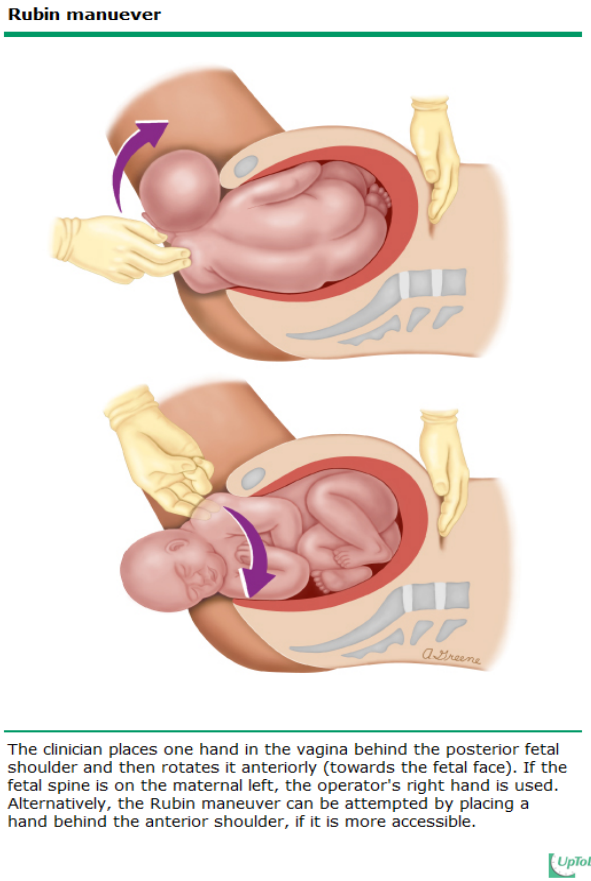
Internal Maneuvers

- Rubin I and II
- Woods' Screw and Reverse Woods' Screw
- Removal of Posterior Arm

- "Pringle Maneuver" with the hand

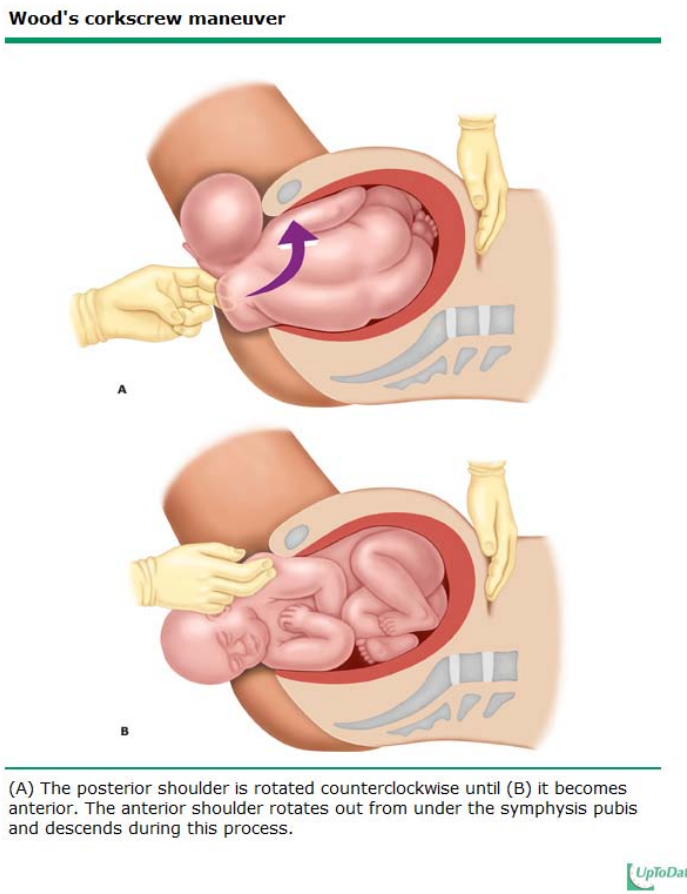
Rubin II

- Inserting fingers of ONE hand behind most accessible fetal shoulder
- Pushing shoulder toward the fetus' chest
- Collapse of shoulder girdle



Wood Screw

- Approach the posterior shoulder from the front of the fetus and rotate toward symphysis
- Combine in same direction as Rubin II
- = 2 fingers behind anterior shoulder and 2 fingers in front of posterior shoulder



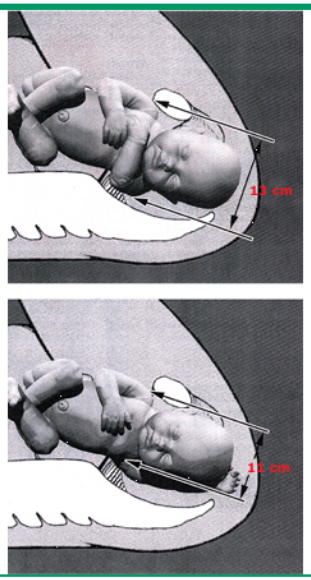
Reverse Wood Screw

- 2 fingers on posterior aspect of posterior shoulder
- Identical to Rubin II on posterior shoulder
- Rotates into an oblique plane

Removal Posterior Arm

- Decreases bisacromial diameter
- Anterior shoulder collapse and fetus drops into pelvis
- **flex the elbow***** to deliver forearm- avoids humeral fracture (should see hand 1st)

The effect of the Barnum maneuver in reducing the obstructing part of the fetal shoulder



The operator has already inserted a hand into the vagina and delivered the posterior arm by sweeping it across the fetal chest, and thus delivered the posterior shoulder as well (not shown). A 13-cm bisacromial diameter becomes an 11-cm axillo-acromial diameter upon delivery of the arm.

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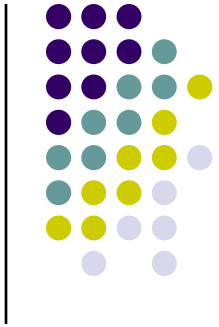
Other

- Clavicule Fracture

Getting Help

- If you have attempted any 2 maneuvers without success call for second Attending Physician/Chief
  - You are now 1-2 minutes into dystocia
- Concise Communication relaying what maneuvers have been attempted for how long
- Call Anesthesia and NICU
- Use Code White if no rapid response from any needed discipline

Fetal Morbidity

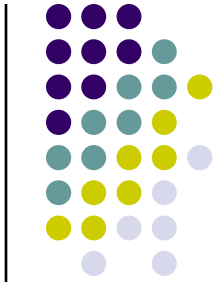


- More maneuvers increases the chance of success
- More maneuvers increases the risk of fetal injury
  - Brachial plexus
  - Clavicle fracture
- Head:Body delivery time
  - <5 minutes no significant increase risk of fetal acidosis or hypoxic ischemic encephalopathy (HIE)
  - >5 minutes and risk of acidosis increases 5.9% and risk of HIE increases to 23.9%

When All Else Fails….

- Zavanelli
  - Administer terbutiline SQ or nitroglycerin IV
  - Cephalic replacement of head
  - Cesarean Delivery
- Abdominal Surgery and Hysterotomy
  - Facilitates vaginal delivery in severe cases
  - Surgeon rotates fetus through hysterotomy incision
- Symphysiotomy
- Muscle Relaxation
- Tocolysis

Documentation



- Keeping Time is Imperative
  - Note time of delivery of head
  - Time kept for each maneuver of 30-60 seconds
  - Total time to delivery and mode of delivery
- Who is in the room
  - when new providers are called/activated and enter the room
- Is FH still obtainable and what it is
- Nurses can’t document if you don’t tell them what you are doing or need
- Use all information for your written documentation after delivery, including discussion with patient about what occurred