SHOULDER DYSTOCIA

LEGAL IMPLICATIONS FOR THE PROVIDERS
DEFINITION

• Shoulder dystocia occurs when the descent of the anterior shoulder is obstructed by the symphysis pubis or impaction of the posterior shoulder.

INCIDENCE

• According to ACOG (American College of Obstetrics and Gynecology), the reported incidence of shoulder dystocia among vaginal deliveries range from 0.2% to 3%.
Anteriorly - pubic arch

13 cm

12 cm

11 cm

Laterally - ischial tuberosities and ischial spines

Posteriorly - occyx
RISK FACTORS

• Macrosomia (a newborn who is significantly larger than average) – usually over 4500 gm or 8 lb. 13 oz.
• Gestational Diabetes
• Instrument Delivery
• Prolonged second stage of labor
• Induction or augmentation of labor
• Presence of “turtle sign” is suggestive of shoulder dystocia
When a woman has gestational diabetes, the extra glucose triggers extra insulin production in the fetal pancreas and can result in a large baby.
Forceps and vacuum extraction has been associated with a higher risk of shoulder dystocia – explained by the interruption of the mechanisms of labor related to internal rotation.

Despite the identification of numerous risk factors for shoulder dystocia, physicians agree that it is impossible to predict shoulder dystocia accurately, even when there are several risk factors present.

ACOG recommends cesarean delivery for babies greater than 5000 (11 lb.) gm for the non diabetic, and 4500 gm for the diabetic mother.
MANAGEMENT OF SHOULDER DYSTOCIA

• Recognizing a shoulder dystocia and implementing proper interventions and a timely delivery are the goals of the medical team
• The time interval considered safe from the moment of the delivery of the fetal head to the resolution and delivery is not clear

• Once the fetal head has delivered during a dystocia, umbilical cord compression between the fetus and the maternal pelvic could result in fetal hypoxemia, metabolic acidosis, and permanent neurological damage or death if the delivery is not expedited
• As the woman progresses in labor, assure that her bladder is empty so that at the time of delivery, a full bladder is not a hindrance.

• If a dystocia is present, assure that the bed is flat and the woman’s perineum is at the edge of the bed to allow maneuvers to occur. Always avoid the use of excessive force, tugging, jerking and fundal pressure.

EPISIOTOMIES

• Multiple studies have shown that episiotomy is not necessary to resolve shoulder dystocia.
MANEUVERS FOR SHOULDER DYSTOCIA

- McRoberts Maneuver
  - Decrease in angle of pelvic inclination.
  - Increases AP diameter of pelvis.
  - Successful in 90% (RCOG 2012)

- Suprapubic pressure
• Delivery of the posterior shoulder arm

Figure 4. Delivery of the posterior arm. By passing one hand into the vagina along the posterior arm, the practitioner may flex the fetal arm until the forearm may be gripped and swept across the fetal chest, delivering the posterior arm and shoulder. Reprinted with permission from Low GH, Pullis MS. Emergency Childbirth. In: Roberts J, editor. Roberts & Hedges Clinical Procedures in Emergency Medicine. Philadelphia: Elsevier; 2012:1170.

• Rubin Maneuver

Rubin manoeuvre

1. Rubin manoeuvre (2)
• Results from a study conducted by Leung et al (2011) indicate that most (94.6%) cases of shoulder dystocia can be resolved by the application of three maneuvers within 4 minutes.

• Up to 30 seconds is recommended as the appropriate amount of time to be spent on each maneuver.
COMPLICATIONS OF SHOULDER DYSTOCIA

Injuries associated with shoulder dystocia may include:

- Transient and permanent brachial plexus injury
- Clavicular and humeral fracture
- Axillary and median nerve injury
- Fetal/neonatal death
BRACHIAL PLEXUS INJURY

• The brachial plexus is the major bundle of nerves that begin at the base of the neck and run through the shoulder, arm, and hand.

Brachial plexus palsies occur in 7-20% of infants whose deliveries were diagnosed with a shoulder dystocia. Nearly all infants recover within 6-12 months, 10% will be left with a permanent and disabling injury.

Avulsion is the forcible detachment of the nerve roots and produces the most severe deformities.

Pediatric physical therapists and pediatric neurologists should be consulted.
ACOG 2014 PUBLICATION FROM THE NEONATAL BRACHIAL PALSY TASK FORCE

• The existence of neonatal brachial plexus palsy following birth does not deductively indicate that exogenous forces are the sole cause of this injury.

• Neonatal brachial plexus palsy also has been shown to occur entirely unrelated to traction, with studies demonstrating cases of both transient and persistent neonatal brachial plexus palsy in fetuses delivered vaginally without clinically evident shoulder dystocia or fetuses delivered by cesarean section without shoulder dystocia.

• Thus the automatic assignment of responsibility to an obstetrician or midwife for a brachial plexus injury is inappropriate and is not supported by the obstetrical literature.
CLAVICULAR AND HUMERAL FRACTURE

- A fracture of the humerus occurs in approximately 4% of shoulder dystocia deliveries. Such injuries heal rapidly and rarely result in litigation.
STANDARD OF CARE

• The standard of care for shoulder dystocia is that every team member knows what to do, how to do it, when to do it, and how to document it.
• Also, it is that degree of skill and diligence practice by a reasonably prudent practitioner in the field of practice or specialty.

AREAS OF LITIGATION

• 1. The first claim involves whether the physician knew or should have known that the risk of shoulder dystocia was high enough that discussion should be made with the mother and possible Cesarean delivery be completed.
• 2. The second claim assumes that since the baby has a permanent brachial plexus injury, the obstetrician must have pulled too hard at delivery (a concept frequently referred to as traction).
QUESTIONS????