EM CASE OF THE WEEK.

BROWARD HEALTH MEDICAL CENTER
DEPARTMENT OF EMERGENCY MEDICINE

BROWARD HEALTH
Care Warriors

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Vol 3 | Issue 64

Breech Delivery

An 18-year-old female with no past medical history and no prenatal care presents to the ED in active labor. Her contractions are painful, less than 3 minute apart and lasting for 1 minute. There is obvious excessive vaginal secretion and blood. Patient reports her last menstrual cycle beginning 8 months prior. Patients vitals are within normal limits. On physical exam, patient is 10cm dilated, actively contracting and a foot can be palpated/seen on exam. You are able to monitor the fetus and monitoring shows fetal heart rate decelerations approximately 15-30 seconds after the contraction. The on-call obstetrician is in a complicated cesarean-section and/or you are in a facility without obstetric support. What is the next best option?

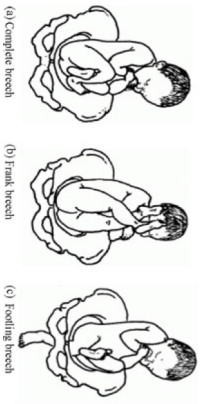
A. Transport emergently to nearest OB capable facility/wait for OB support to arrive

B. Tell the mother not to push as you attempt Leopold's maneuvers to reposition the fetus

C. Have the mother bear down as with normal birth

D. Reach and pull the protruding extremity

- Complete breech (5-10%) - Hips flexed, knees flexed (cannonball position)
- Frank breech (50-70%) – Hips flexed, knees extended (pike position)
- Footling or incomplete (10-30%) - One or both hips extended, foot presenting



EM Case of the Week is a weekly "pop quiz" for ED staff.

The goal is to educate all ED personnel by sharing common pearls and pitfalls involving the care of ED patients. We intend on providing better patient care through better education for our nurses and staff.

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The correct answer is **C.** The mother should bear down as if normal childbirth.

Treatment

A footling presentation as described can be a frightening sight. Maternal expulsion should pass the legs and buttock through the vaginal canal. During this time it is important to keep the delivered part of the infant in a horizontal plane with the vaginal canal. If the umbilical cord has delivered make sure it is not compressed, add slight traction to gain slack and check for pulsation.

The mother should be asked to push again to deliver the arms and shoulders. They may deliver spontaneously but if not the infant would need to be rotated. Wrap the infant in a towel and always hold traction at the boney prominences such as the iliac crests. Grabbing the abdomen while maneuvering the infant can cause internal trauma. Keeping the infant in an anterior/posterior plane allows the physician to deliver one arm at a time then rotating the infant to deliver the other arm.

Delivering the head can be complex. The infant should be rotated face down while apply suprapubic pressure to flex the neck (Bracht maneuver), following this there are a few different options for delivery most of which involve obstetric tools. Since this an emergency delivering we will assume no devices such as forceps are available. Flexing the neck with suprapubic pressure should be accompanied by a push from the mother. Once the hairline is visible the physician may grab the infants legs and "swing' them upwards so that the infant covers the entire vulva. With the other hand the physician applies downward pressure on the vaginal wall and assists the infants head from hyperextending as it passes through the vaginal canal.

Discussion

Footling/incomplete breech births are the second most common of all breech presentations. Maneuvers and recommendations very for each presentation but general principals of preventing cord compression, hyperextension and flexion of the infants neck and single limb vaginal exits apply.

Frank breech is the most common presentation, which is also called pike position has the infants hips flexed and knees extended so the buttock first present through the cervix. The least common is the complete breech where the infant is positioned "Indian style".

Each presentation has its own challenges and C-section delivery is associated with a lower rate of maternal and fetal morbidity and mortality. When C-section is not an option, the mother and child have increased morbidity and mortality. In children mortality risk extend to weeks after birth. There are no long term sequela associated with a vaginal birth of a breech presentation compared to a C-section documented in the literature.

Warriors

BROWARD HEALTH MEDICAL CENTER

March 2017 | Vol 3 | Issue 45

Take Home Points

- There is still a lack of prenatal care in rural/inner city communities. This can prevent the detection of breech births.
- A woman may present to the nearest ED already in active labor and an emergency room physician will have to deliver the infant.
- 4-6% of deliveries are of breech type.
- Again, protecting the umbilical cord, neck and abdomen of infant will aid in a successful delivery.
- Single limb delivery is less likely to cause palsy, hyperextension injury, fractures and dislocation.
- Transportation and specialist help should be readily available due to the 5-fold increase of peri-delivery morbidity and mortality for the infant.
- It is important to closely monitor and scrutinize the infant since breech presentation is a marker for congenital abnormalities.

ABOUT THE AUTHOR

This month's case was written by Alexander Logsdon. Alexander is a 4th year medical student from NSU-COM. He did his emergency medicine rotation at BHMC in March 2017. Alexander will be starting a residency in general surgery this July.

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