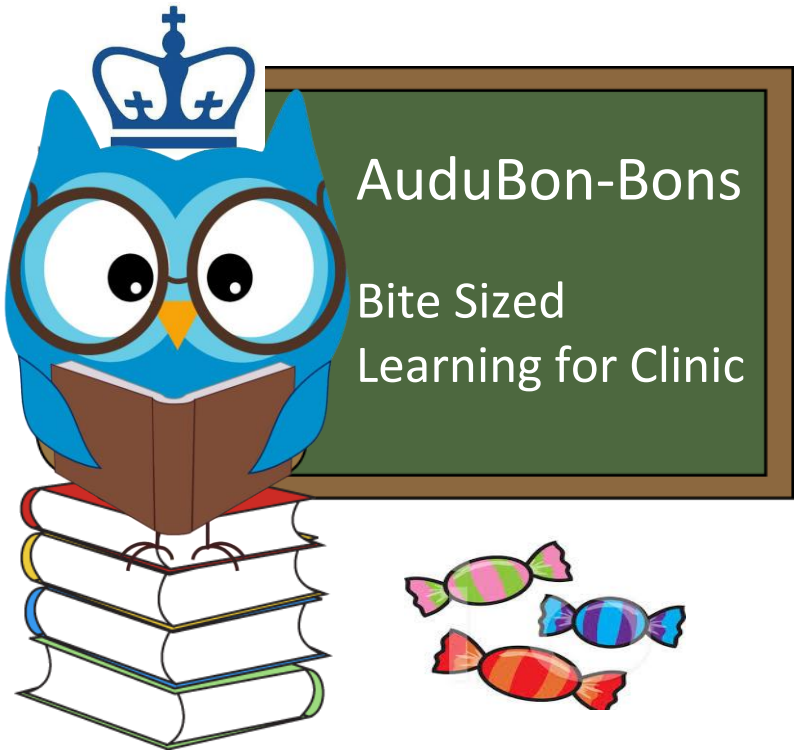
BREECH PRESENTATION AT TERM



Week 66

Prepared by: **Stephanie Warsheski, MD**
With SDH slide by Chloé Altchek, MS4

Reading Assignment:
ACOG Committee Opinion # 745
Mode of Term Singleton Breech Delivery

Watch ECV Video
https://youtu.be/0y1MrMjtWKo

LEARNING OBJECTIVES

- To review risk factors for fetal malpresentation
- To be able to diagnose breech presentation
- To feel comfortable counseling patients on management options for the breech fetus at term

CASE VIGNETTE

- Ms. F.M. is a 28 y.o. G3 P2002 woman at 36 weeks EGA who presents to your office for routine PNC.
  - She reports her last pregnancy resulted in a cesarean delivery due to fetal malpresentation.
  - She would like to know if the same thing will happen during this pregnancy?

FOCUSED HISTORY

What elements of this patient's history are most relevant?

- **OBHx:** **FT NSVD x 1, FT C/S x 1 for fetal malpresentation**
- **GYNHx:** Reports history of **fibroids**. Denies ovarian cysts, abnormal paps.
- **PMHx:** Denies
- **PSHx:** **Cesarean delivery 3 years ago**
- **MEDS:** PNV
- **ALL:** NKDA
- **SocHx:** Denies use of tobacco, ETOH, illicit drugs

PERTINENT PHYSICAL EXAM FINDINGS

What elements of the patient's physical exam are most important?

- **Vitals**: T37C, BP 128/84, HR 82, RR 18
- **Abdominal exam:** Gravid, soft, nontender
- **Leopold maneuvers:** **Palpation of a hard, round, mobile structure at the unable to palpate a presenting part in the lower abdomen superior to the pubic bone**
- **Cervical exam:** **L/C/P, unable to palpate a presenting part**
- **Fetal assessment:** FH 36cm, FHR 140bpm

BACKGROUND

- Breech presentation refers to the fetus in the longitudinal lie with the buttocks or lower extremities entering the pelvis first
- **What are the 3 types of breech presentation?**
  - Frank breech
  - Complete breech
  - Incomplete breech

Stegeman K., Amin S., Wray A.A., Tyndall J.A. (2016) Breech Delivery in the Emergency Department. In: Ganti L. (eds) Atlas of Emergency Medicine Procedures. Springer, New York, NY. https://doi.org/10.1007/978-1-4939-2507-0_117

ETIOLOGY/PATHOPHYSIOLOGY

- **What clinical conditions are associated with breech presentation?**
  - Prematurity
  - Multiple gestations
  - Aneuploidies
  - Congenital anomalies
  - Mullerian anomalies
  - Uterine leiomyoma
  - Placentation (placenta previa, etc.)
  - Hydramnios
  - Laxity of the maternal abdominal wall

Clinical conditions associated with breech presentation include:

- **Those that may increase or decrease fetal motility**
- **Those that may affect the vertical polarity of the uterine cavity**

EPIDEMIOLOGY

- **The percentage of breech presentations increases with decreasing gestational age:**
  - Term pregnancies: 3 – 4 %
  - 32 weeks: 7%
  - ≤ 28 weeks: 25%

- What is the **recurrence rate** for **the second pregnancy** following one breech delivery?
  - ~ 10%

- What is **the recurrence rate** for the **third pregnancy** following two breech deliveries?
  - 27%

Prior cesarean delivery can increase the incidence of breech presentation two-fold!

EVALUATION

- **Physical exam:**
  - Leopold maneuvers
  - Cervical exam

Fetal presentation should be assessed and documented at 36 0/7 weeks of gestation to allow for external cephalic version to be offered.

- **Ultrasonography**
  - Fetal lie and presenting part should be visualized and documented
  - If breech presentation is diagnosed additional information is needed:
    - Specific type of breech
    - Degree of flexion of the fetal head
    - EFW
    - AFI
    - Placental location
    - Fetal anatomy review (if not done previously)

COUNSELING

- **You determine that Ms. F.M.'s fetus is in a complete breech presentation. How will you counsel her regarding her options for labor and delivery?**
  - The decision regarding the mode of delivery should be based on a shared decision making model, including the patient's wishes and the experience of the obstetrician.
  - External cephalic version is an alternative to planned cesarean delivery in the women with a term, singleton breech fetus, desiring a planned vaginal delivery of a vertex-presenting fetus and has no contraindications.
  - Planned vaginal delivery of a term singleton may be reasonable under hospital-specific protocol guidelines

MANAGEMENT

- The trend in the US is to perform cesarean delivery for term, singleton fetuses in a breech presentation
  - **In 2002, the rate of cesarean deliveries for women in labor with breech presentation was 86.9%**
- The number of practitioners with the skills and experience to perform vaginal breech delivery has decreased.
- In 2000, a large, international, multicenter randomized clinical trial comparing a policy of planned cesarean delivery with planned vaginal delivery was conducted (Term Breech Trial).
  - Perinatal mortality, neonatal mortality and serious neonatal morbidity were significantly lower among the planned C/D group compared with the planned vaginal delivery group.
  - There was no difference in maternal morbidity or mortality observed.

MANAGEMENT – VAGINAL BREECH DELIVERY

- After the Term Breech Trial, in 2001, ACOG recommended that planned vaginal delivery of a term singleton breech was no longer appropriate.
- However, after additional publications, **ACOG now states that "Planned vaginal delivery may be reasonable under hospital-specific protocol guidelines for both eligibility and labor management."**
- If a vaginal breech delivery is planned, a detailed informed consent should be documented, including risk that perinatal or neonatal mortality or short-term serious neonatal morbidity may be higher than if a cesarean delivery is planned.

MANAGEMENT – EXTERNAL CEPHALIC VERSION

- **ECV should be offered as an alternative to planned cesarean for a woman who has a term, singleton breech fetus, desires a planned vaginal delivery of a vertex-presenting fetus, and has no contraindications.**
  - ECV has been shown to decrease C/D rates by 43% with no difference in maternal or fetal complications.
- **Which patients are candidates for ECV?**
  - EGA of 37+0
  - Prior uterine scar ok
  - No contraindications to vaginal delivery

MANAGEMENT – EXTERNAL CEPHALIC VERSION

- **What are the benefits of ECV?**
  - Increased probability the fetus will be in a vertex presentation for delivery
  - Fewer cesarean births among women with a successful ECV vs not attempted ECV
  - Women with a successful ECV: lower hospital charges, reduced total LOS, lower odds of developing endometritis, sepsis and LOS > 7 days.
- **What are the risks of ECV?**
  - Placental abruption, umbilical cord prolapse, ROM, stillbirth, fetomaternal hemorrhage
    - All above stated risk ≤ 1%
- **What are the success rates for ECV and what factors are predictive of success or failure?**
  - Success rates vary widely: 16% - 100% with a pooled success rate of 58% and pooled complication rate of 6.1%.
  - Factors associated with success: unengaged breech, parity, increased AF, nonfrank breech presentation, EGA < 38 weeks, posterior placenta
  - Factors associated with failure: nulliparity, advanced dilatation, EFW < 2.5kg, anterior placenta, low station

MANAGEMENT – EXTERNAL CEPHALIC VERSION

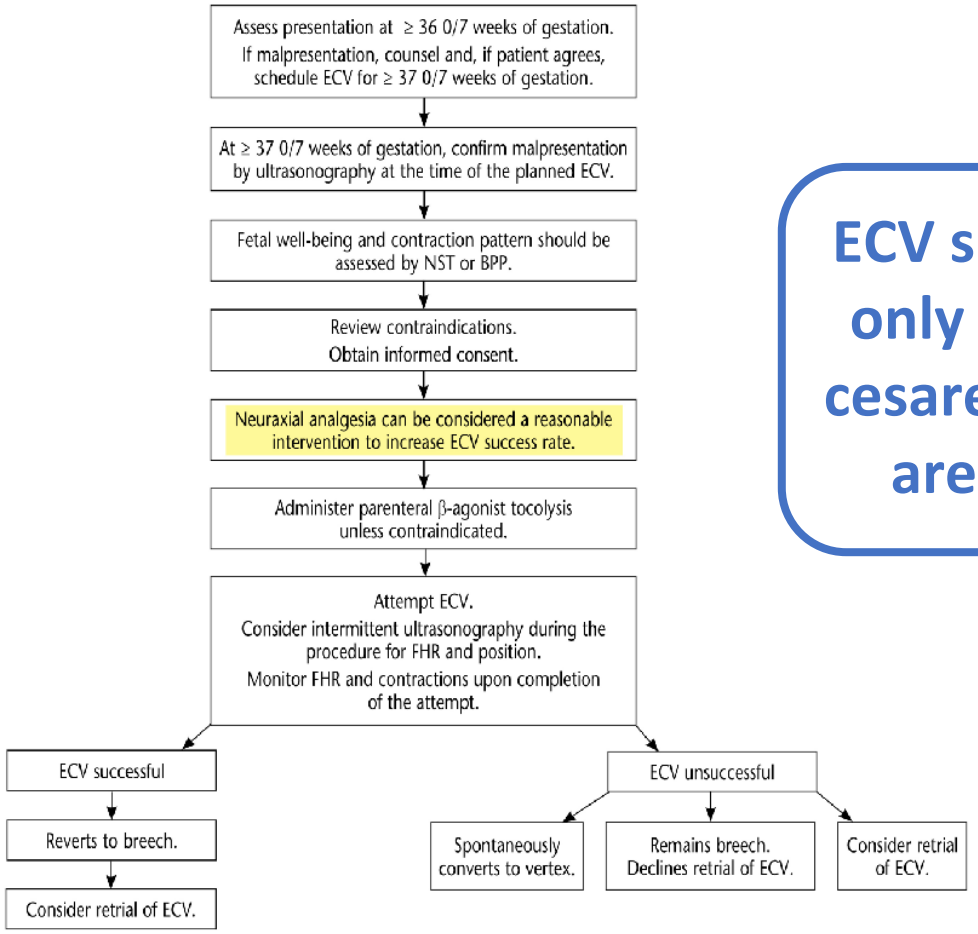


Figure 1. An algorithm for patient management for external cephalic version. Note: All Rh-negative women who undergo an ECV attempt, whether successful or not, should receive Rh-immune globulin unless they are known to have an Rh-negative fetus, are already sensitized, or will be delivered in less than 72 hours and can have an assessment for risk of sensitization. Abbreviations: BPP, biophysical profile; ECV, external cephalic version; FHR, fetal heart rate; NST, nonstress test.

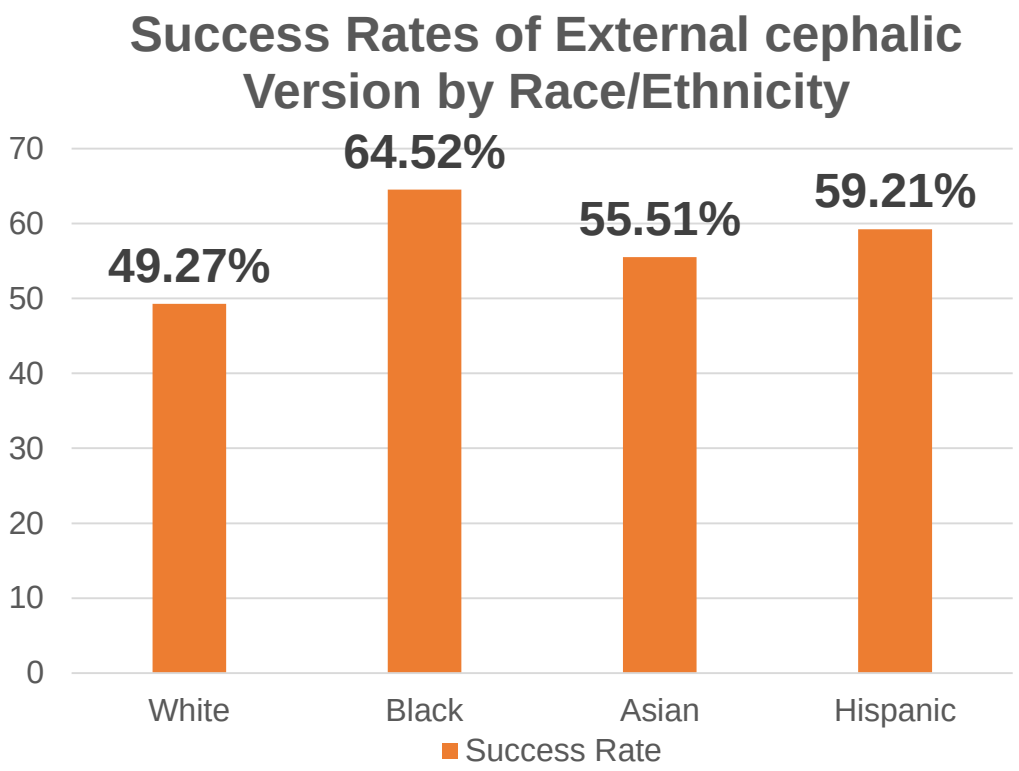
ECV should be attempted only in settings in which cesarean delivery services are readily available!

MANAGEMENT – CESAREAN DELIVERY

- If a patient declines ECV, a cesarean delivery should be scheduled for 39 weeks EGA.
- R/B/A of cesarean delivery should be explained in detail during the counseling.

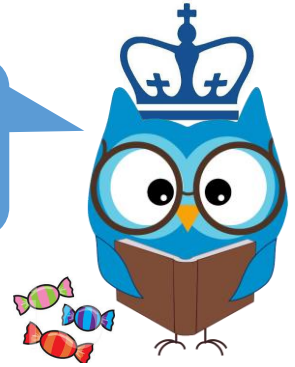
SOCIAL DETERMINANTS OF HEALTH

Disparities in the Success Rates of ECV Among Different Maternal Racial/Ethnic Groups



- Non-Hispanic White women have the lowest ECV success rate at 50%
- Non-Hispanic Black women have the highest ECV success rate at 66%
- An estimated 20 – 30% of eligible women are not being offered ECV, however the race/ethnicity breakdown of women who are offered or accept ECV has not been studied

Further investigation is needed to understand the underlying causes for this disparity!



Eran Bornstein, Yael Eliner, Amos Grunebaum, Erez Lenchner, Asaf Ferber, Frank Chervenak, 302 Maternal race/ethnicity impacts the success rates of external cephalic version in the US, American Journal of Obstetrics and Gynecology, Volume 224, Issue 2, Supplement, 2021, Pages S197-S198, ISSN 0002-9378, https://doi.org/10.1016/j.ajog.2020.12.324.

EPIC .PHRASE

.BBonBreechAtTerm

Description: Counseling for mode of delivery for patients with breech at term

The patient was counseled on the position of the fetus. The fetus was noted to be in ***complete/incomplete/frank breech presentation. It was explained to the patient that the decision regarding the mode of delivery should be based on a shared decision making model, including the patient's wishes and the experience of the obstetrician. External cephalic version is an alternative to planned cesarean delivery in women with a term, singleton breech fetus, desiring a planned vaginal delivery of a vertex-presenting fetus with no contraindications. The R/B/A of ECV were explained to the patient in detail. A planned vaginal delivery of a term singleton may be reasonable under hospital-specific protocol guidelines.

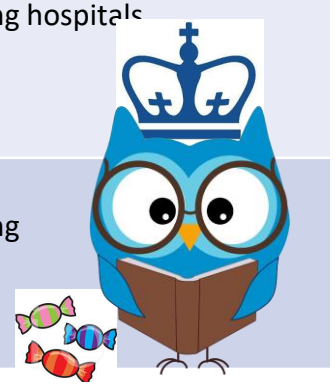
The patient opted for ***ECV vs planned cesarean delivery. Instructions were given to the patient regarding timing of the procedure, preop testing and what to expect after.

CODING AND BILLING

- Diagnostic Codes (ICD-10)
  - 032.1 Maternal care for breech presentation (complete or frank)
  - 032.8 Footling presentation or incomplete breech presentation

CODING AND BILLING – NEW PATIENT

HISTORY	EXAM	MEDICAL DIAGNOSIS MAKING	CODE	APPLICABLE GUIDELINES
Problem focused: - Chief complaint - HPI (1-3)	Problem focused: - 1 body system	Straight forward: - Diagnosis: minimal - Data: minimal - Risk: minimal	99201	- Personally provided - Primary care exception - Physicians at teaching hospitals
Expanded problem focused: - Chief complaint - HPI (1-3) - ROS (1-3)	Expanded problem focused: - Affected areas and others	Straight forward: - Diagnosis: minimal - Data: minimal - Risk: minimal	99202	- Personally provided - Primary care exception - Physicians at teaching hospitals
Comprehensive - Chief complaint - HPI (4) - ROS (2-9) - Past, family, social history (1)	Detailed: - 7 systems	Low: - Diagnosis: limited - Data: limited - Risk: low	99203	- Personally provided - Primary care exception - Physicians at teaching hospitals
Comprehensive - Chief complaint - HPI (4+) - ROS (10+) - Past, family, social history (3)	Comprehensive: - 8 or more systems	Moderate: - Diagnosis: multiple - Data: moderate - Risk: moderate	99204	- Personally provided - Physicians at teaching hospitals
Comprehensive - Chief complaint - HPI (4+) - ROS (10+) - Past, family, social history (3)	Comprehensive: - 8 or more systems	High: - Diagnosis: extended - Data: extended - Risk: high	99205	- Personally provided - Physicians at teaching hospitals



CODING AND BILLING – ESTABLISHED PATIENT

HISTORY	EXAM	MEDICAL DIAGNOSIS MAKING	CODE	APPLICABLE GUIDELINES
Expanded problem focused: - Chief complaint - HPI (1-3)	Problem focused: - 1 body system	Straight forward: - Diagnosis: minimal - Data: minimal - Risk: minimal	99212	- Personally provided - Primary care exception - Physicians at teaching hospitals
Expanded problem focused: - Chief complaint - HPI (1-3) - ROS (1)	Expanded problem focused: - Affected area and others	Low: - Diagnosis: limited - Data: limited - Risk: low	99213	- Personally provided - Primary care exception - Physicians at teaching hospitals
Detailed - Chief complaint - HPI (4+) - ROS (10+) - Past, family, social history (3)	Detailed: - 7 systems	Moderate: - Diagnosis: multiple - Data: moderate - Risk: moderate	99214	- Personally provided - Physicians at teaching hospitals
Comprehensive - Chief complaint - HPI (4+) - ROS (10+) - Past, family, social history (2)	Comprehensive: - 8 or more systems	High: - Diagnosis: extended - Data: extended - Risk: high	99215	- Personally provided - Physicians at teaching hospitals

EVIDENCE

- References

  - External Cephalic Version. ACOG Practice Bulletin No. 221. American College of Obstetricians and Gynecologists. Obstet Gynecol 2020;135:e203–12.
  - Gray CJ, Shanahan MM. Breech Presentation. [Updated 2020 Aug 11]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-.
  - Mode of term singleton breech delivery. ACOG Committee Opinion No. 745. American College of Obstetricians and Gynecologists. Obstet Gynecol 2018;132:e60–3.
  - Safe prevention of the primary cesarean delivery. Obstetric Care Consensus No. 1. American College of Obstetricians and Gynecologists. Obstet Gynecol 2014;123:693–711.
  - Eran Bornstein, Yael Eliner, Amos Grunebaum, Erez Lenchner, Asaf Ferber, Frank Chervenak, 302 Maternal race/ethnicity impacts the success rates of external cephalic version in the US, American Journal of Obstetrics and Gynecology, Volume 224, Issue 2, Supplement, 2021, Pages S197-S198, ISSN 0002-9378, https://doi.org/10.1016/j.ajog.2020.12.324. (https://www.sciencedirect.com/science/article/pii/S0002937820317002)