PROTOCOL #15 - Maternal Fetal Medicine, University of New Mexico

EXTERNAL VERSION

A. Objective:
3-4% of term births are breech with most resulting in a c-section, successful external version may allow a woman to avoid an operative delivery.

B. Candidates for an attempted version
At 37+ weeks
- if spontaneous version is to occur likely would have by this time.
- if version is successful less likely to revert back to breech and if emergent delivery required infant is still "term")

Prior c-section – not adequate data for definitive statement but seem to have similar success. Magnitude of uterine rupture risk appears to be small but is unknown.

C. Contraindications to version
1. Any contraindication to vaginal delivery
2. Multiple gestation
3. Rupture of membranes
4. Hyperextended head
5. Significant fetal or uterine anomalies
6. Relative contraindications:
   a. IUGR (<10%)
   b. Extreme maternal obesity
   c. Chronic HTN
   d. Low AFI

D. Counseling points:
1. Success Rates: 60% depending on skill of practitioner and selection criteria. (No good tool to predict success but normal to elevated AFI, unengaged presenting part, transverse lie, normal maternal weight, easily palpated fetal spine and posterior placenta all contribute to higher success.
2. Benefits: Increase likelihood of vertex presentation in labor thereby decreasing c-section rate (but not necessarily to levels of a patient who did not require a version)
3. Risks: 6% risk of complication with most being transient abnormal fetal heart rate. However there is a slight increase risk of stillbirth (1/5,000 attempts) or abruption (1/1200 attempts) and emergent c-section (1/286 attempts). There is also a chance of returning to the abnormal lie (~6%) that necessitated the version.

E. Procedure:
Should be attempted at 37+ weeks on fetuses presenting as a breech or transverse. An attending physician must be present throughout the procedure and the fetus should be monitored before, during, and immediately following the procedure. The procedure must be done in L&D and a physician must obtain informed consent.

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1. Patient should be NPO in case an emergent delivery required
2. Explain procedure to patient including risk/benefits and possibility of c-section
3. Have patient sign consent
4. Ultrasound to document fetal position before initiating further procedures
5. NST should be performed and should be reactive
6. Start IV LR and bolus 500 ml over 30 min.
7. Do time out prior to starting to be sure everyone is ready should complication occur
8. Terbutaline - Dissolve 0.25 mg in 10 ml of normal saline and inject by slow IV push. (Alternative is SQ about 15-30 minutes prior to procedure. Also nitroglycerine can be used but there are more side effects.) Tocolysis improves success rate, especially with primagravids. Usefulness in multigravids less clear. Currently not enough consistent evidence to make recommendations for regional anesthesia for ECV.
9. Attempt to turn the infant to a vertex presentation by manipulation of the infant through the abdominal wall into a forward or backward roll. This can be attempted by a single individual or two working in concert. Assistant will help by holding the fetal monitor transducer and following the fetal heart rate throughout the version. A real time scanner is used intermittently during the procedure to assess/verify movement of fetus
10. If fetal spine is in a midline position the use of vibroacoustic stimulation may facilitate the fetus rotating to a spine lateral position. Although the data is not definitive this is inexpensive, well-tolerated with no side effects.
11. Ultrasound and NST again for at least 20-40 minutes and is stable and reassuring.
12. If patient is Rh – they should receive a standard dose of Rhogam since any fetomaternal hemorrhage is less than 30 cc.
13. Patient is sent home. Immediate induction would only be considered if this is a repeat version and/or the patient is 38/39 weeks EGA.

CONSULTATION: Twenty-four hour consultation is available by calling the Maternal Fetal Medicine service at the University of New Mexico Hospital. 1-888-866-7257.

Reference

ACOG Practice Bulletin Number 13 – External Cephalic Version 2000.