The occasional external cephalic version

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You examine Ms S.A., who is 36 weeks pregnant, at your office. She is thin, so you are fairly sure the fetal head is at the xiphoid process, and it's the sacrum presenting to the pelvis. Her 4 previous deliveries were all vaginal, and she wants to avoid a cesarean delivery if possible. Assuming that the breech position is confirmed, what options can you, as a rural doctor, give her?

Although breech delivery can be supported in rural settings,[1] it would be nicer if the presenting part were vertex. External version, known from Aristotle's time, is the procedure by which one applies pressure to the maternal abdomen to encourage the fetus, in gentle stages, to rotate first to a transverse lie and then to a cephalic position.

PREREQUISITES

- Bedside ultrasound to confirm position
- Singleton pregnancy
- Fetal cardiotocograph
- Acoustic stimulator (optional, may improve success rates)
- Terbutaline for tocolysis (optional, may improve success rates)
- No contraindication to immediate delivery (e.g., placenta previa)
- Emergency cesarean capability on site
- Intact membranes
- Healthy pregnancy (contraindications include third-trimester vaginal bleeding, intrauterine growth restriction, placenta previa and major fetal abnormality)
- Informed consent

Based on meta-analyses, the success rate of the procedure is 50%–60%, with risks of maternal discomfort (which may be lessened by tocolytic medication to relax the uterus) and rupture of membranes, and remote risk of fetal distress, which might proceed to cesarean delivery.[2,3] There is no increased risk of antepartum fetal death, uterine rupture or placental abruption in the absence of general anesthetic.[2,3]

Because of the remote risk of imminent delivery, the procedure is usually attempted when the baby is at 36 weeks' gestation or more.

PROCEDURE

Ms S.A. has an ideal presentation at 36 weeks. She has previously delivered and has an unengaged breech presentation, both of which are associated with positive outcomes.[4] The procedure takes place in the following sequence.

Do a baseline nonstress test for 20 minutes and bedside ultrasound to confirm the orientation of the fetal spine and head (Fig. 1). If the fetus is engaged in the breech position, you will need to dislodge the fetus, either transabdominally or from the vagina.

Push the breech laterally through the maternal abdomen. At the same time, push the head laterally in the other direction to have the fetus rotate to either somersault or backflip into a more favourable position (Fig. 2).

If the fetus is rotating, continue applying gentle pressure (Figs. 3–5). Successful versions are easy and usually take only a few minutes. If the version is not proceeding at that time, try pushing the fetus in the other direction or adding tocolysis.

After the version, do a repeat ultrasound to confirm the orientation of the fetus. Repeat the nonstress test, regardless of the success of the procedure.

Transient cardiographic abnormali-

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Fig. 1. Bedside ultrasonography and cardiotocography.



Fig. 2. Breech pushed laterally.



Fig. 3. Gentle ongoing pressure.



Fig. 4. The fetus slowly rotates.

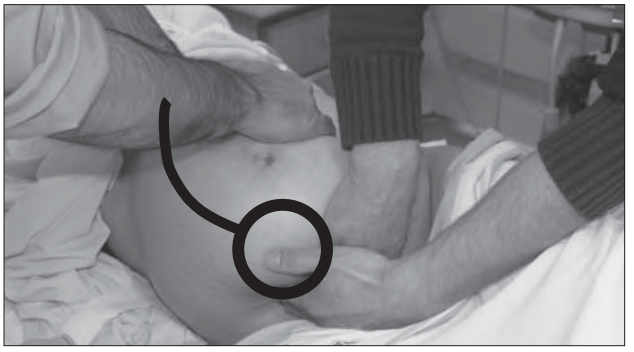


Fig. 5. Fetus in the cephalic position.

ties can be tolerated, but if they persist they require reversion to the breech position, tocolysis and/or emergency cesarean delivery.

Administration of Rh_O(D) immune globulin to Rh-negative mothers is advised. Otherwise, routine follow-up is appropriate.

The authors were successful in the version illustrated, and the patient delivered, after spontaneous labour, a healthy 4010-g baby girl.

CONCLUSION

Elective version of noncephalic presentation can be safely and successfully done by the rural doctor, potentially reducing the need for cesarean delivery.

Competing interests: None declared.

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