



ANSWER

The fetus was structurally completely normal. The patient was delivered via cesarean section at 34 weeks of gestation due to persistent spontaneous fetal heart rate decelerations on external fetal cardiotocography. The fetus was observed to be morphologically normal and survived without a problem.

Hyperextension of the fetal head has been noted in <1 to 11% of pregnancies depending upon the angle of extension greater than either 90°, 105° or 135° (1,2). Possible etiologic factors are fetal anomalies such as structural abnormalities, conjoined twins, fetal neck masses and iniencephaly, nuchal cords, arthrogryposis, cystic hygroma and possibly polyhydramnios and placenta previa (3). Multiparity, uterine malformations and leiomyomata may also lead to hyperextension of the fetal head. Using an extension criteria >150° Shipp et al followed-up 57 fetuses and found out that 21 (37%) had structural abnormalities leading to perinatal death.

Although ultrasound is a useful diagnostic tool for evaluation of these fetuses, it should be remembered that whenever an abnormality of the fetal spine is of concern magnetic resonance imaging (MRI) can provide additional information that can impact management of the fetus. This was studied by Griffiths et al; MRI provides useful prognostic information in 20% of the fetuses who were suspected to have spine abnormalities (4). Although no abnormality was detected on the ultrasound evaluation we demanded an MRI in order not to miss any abnormality.

The preferred route of delivery is cesarean section as spinal cord injury may take place especially in cases with breech presentation. Even in cases with non-breech presentations face presentation is commonly seen.

In fetuses with persistent hyperextension of the head and spine MRI is a useful adjunct to ultrasound scanning.

References

1. Gimovsky ML, Paul RH. Singleton breech presentation in labor: experience in 1980. *Am J Obstet Gynecol* 1982;143:733-9.
2. Gimovsky ML, Petrie RH. The intrapartum management of the breech presentation. *Clinics Perinatol* 1989;16:975-86.
3. Shipp TD, Bromley B, Benacerraf B. The prognostic significance of hyperextension of the fetal head detected antenatally with ultrasound. *Ultrasound Obstet Gynecol* 2000;15:391-6.
4. Griffiths P, Widjaja E, Paley MNJ, Whitby EH. Imaging the fetal spine using in utero MR: diagnostic accuracy and impact on management. *Pediatr Radiol* 2006;36:927-33.

Correspondence:

H. Alper Tanrıverdi, MD, Assoc. Prof.
Eray Çalışkan, MD, Assist. Prof.
E-mail : tanriverdi@artemisonline.net