HYPEREXTENSION OF CERVICAL SPINES IN FACE PRESENTATION DIAGNOSED BY FETAL SONOGRAPHY

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SUMMARY

Objective: Traditionally, face presentation is diagnosed by palpation of the fetal nose, chin, mouth and orbital ridges. The fetus is usually in contact with the back because of the hyperextensive posture of the fetus. We report a case of face presentation which was diagnosed by the demonstration of hyperextension of the cervical spines on fetal sonography.

Case Report: A 28-year-old woman (gravida 1, para 0) who had been pregnant for 41 and 1/7 weeks was admitted for induction of labor due to over-term pregnancy. The cephalic presentation had already been reported to her in her regular antenatal clinic. Fetal sonography revealed hyperextension of the cervical spines. During vaginal examination, the fetal nose was palpated and the mentoposterior position was identified. A female baby (4,150 g) was delivered via cesarean section. Apart from the edematous distorted face, the baby did not experience any swelling of the larynx or respiratory difficulty.

Conclusion: Obstetricians should remain alert for the possibility of malpresentation in cephalic lies. Although it is rare to see a face presentation, fetal sonography is an effective tool to provide an early diagnosis of it. Delivery via cesarean section is inevitable if the fetus is in the mentoposterior position. [Taiwanese J Obstet Gynecol 2005;44(2):162–163]

Key Words: cervical spines, face presentation, hyperextension

Introduction

It is rare to find a face presentation when a normal spontaneous delivery is being expected; the incidence has been reported to be one in 2,000 [1]. As face presentation is diagnosed by palpation of the chin, mouth, nose and the orbital ridges [2], the lie of the fetus is the key consideration for physicians in deciding on assisted vaginal delivery or cesarean section.

Under longitudinal lie and face presentation, the fetus is in a hyperextended attitude, with the occiput usually in contact with the fetal back. Hyperextension of the fetal cervical spine is particularly obvious. Here, we report a case of face presentation which was found initially by fetal sonography before per-vaginal (PV) examination.

Case Report

A 28-year-old woman (gravida 1, para 0) who had been pregnant for 41 and 1/7 weeks was admitted for induction of labor. No systemic diseases were mentioned. PV examination revealed one-fingertip-dilatation of the fetal os, and non-stress test showed a reactive result without regular uterine contractions. Oxytocin was prescribed for administration intravenously.

A routine fetal sonography showed cephalic presentation. However, hyperextension of the cervical spines attracted our attention (Figure 1). As the induction of labor proceeded and the cervix dilated to about 3 cm in diameter, the fetal nose was palpated during PV examination. A cesarean section was performed as the...
fetus was judged to be in the mentoposterior position. The Apgar scores of the female baby (4,150 g) were 8 and 9 at 1 and 5 minutes, respectively. However, her face was edematous (Figure 2), and it was difficult for her to open her eyes due to the wrinkled forehead and bilateral puffy eyelids. Although her wine-colored blistered upper lip was fragile, she breathed smoothly, with no respiratory problems from the edematous airway. The edema in her face had completely subsided soon after arriving in the nursery. The early decision of a cesarean section, which shortened the period of compression on the baby’s face during labor, may have contributed to her quick recovery.

Discussion

The etiologies of face presentation are variable. Extended positions occur more frequently when the pelvis is contracted or the fetus is very large [3]. A marked enlargement of the fetus’ neck may cause face presentation. The risk of face presentation is present in macrosomia, gestational diabetes mellitus, and in a post-term fetus. High parity also predisposes to face presentation. The mechanism is related to a pendulous abdomen. A loose multiparous uterus causes a greater risk of fetal cervical hyperextension [4]. Meanwhile, a contractive pelvis has been reported to contribute to face presentation as well [3].

In a mentoposterior position, the chin-to-occiput length (12 cm) may be too long for the baby to pass through the pelvic inlet, which is no more than 10 cm. Delivery via cesarean section is, therefore, inevitable. If the fetus is in a mentoanterior position, vaginal delivery is possible [5] and we should help the mother to deliver her baby vaginally, although we would still face the problem of poor effacement of the cervix. Induction with oxytocin would be controversial in this instance.

A limitation of the traditional method of diagnosing face presentation via vaginal examination is that the fetal nose or mouth can feel similar to the buttock and anus in the flank type of breech presentation. If the mother is determined on a vaginal delivery in such a situation, delivery may be delayed, thus increasing the risk of fetal facial edema, bruising, misshapen features, edema of the larynx leading to respiratory difficulty, and hyperextensive injuries to the neck and spine (similar to whiplash and neck fractures).

In all prenatal examinations, the noninvasive technique of fetal sonography has become the most useful and preferred tool in clinical obstetric practice [6]. However, it is often not used to identify exact fetal presentation when cephalic presentation has already been demonstrated. If obstetricians pay more attention to this point, earlier diagnosis of face presentation can be made.

References