

Prenatal Diagnosis of Fetal Inguinoscrotal Hernia: A Case Report and Review of the Literature

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Fetal inguinal hernia is rarely diagnosed antenatally. Here we reported a case of prenatal diagnosis of an inguinoscrotal hernia at 35 weeks' gestation and was discussed in the light of literature.

Key Words: Inguinoscrotal hernia, Scrotal mass, Inguinal hernia

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Introduction

Although inguinal hernia is a common pediatric disease, fetal inguinal hernia is rarely diagnosed because intra-abdominal pressure usually occurs only after birth. We report a case of prenatal diagnosis of a scrotal mass at 35 weeks' gestation.

The initial differential diagnosis included hydrocele, testicular teratoma and testicular torsion. The diagnosis was confirmed postnatally.¹

Case Report

A 30-year-old woman at 35 weeks' gestation, gravida 1 para 0, presented at our referral center for the fetal scrotal mass on a routine ultrasound scan at the obstetricians' office. The sonogram of the fetus showed a solid mass with 37x27 mm in diameter and with smooth scrotal contour in the right side of the fetal scrotum (Figure 1). The contralateral testis appeared normal. color flow sonography did not show increased blood flow in the scrotum. Peristaltic movements were noted on the ultrasound which resembled scrotal hernia. There were no any other abdominal mass, enlargement of intestines and no associated major abnormality on ultrasound. The amniotic fluid volume was normal.



Figure 1: The sonogram of scrotal hernia

The fetus was assessed sonographically at weekly intervals. The scrotum was not enlarged. The patient had an uncomplicated vaginal delivery of a 3500 g male infant with Apgar scores of 9 at 1 min. and 10 at 5 min. of age at 39 weeks of her gestation.



Figure 2: The photo of scrotal hernia

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The neonate had a large right sided indirect inguinoscrotal hernia which was reducible (Figure 2). No clinical evidence to suggest bowel obstruction was observed. Meconium was passed at postpartum 4th hour. The other neonatal examination was normal.

At 12th days of age right inguinal hernia was repaired by highligation technique and was discharged from the hospital uneventfully.

Discussion

The differential diagnosis of a mass on obstetric ultrasound examination includes hydroceles, meconium hydrocele, sacrococcygeal teratoma, hemangioma, sacral meningomyelocele and testicular tumor.²

Hydroceles are manifested by a fluid-filled space in the scrotum next to the testis. But in our case the mass was mostly solid. The meconium hydrocele may also appear solid on ultrasound because of the meconium's echogenicity. But in meconium hydrocele, meconium peritonitis is observed by abdominal masses, abdominal pseudocysts.² In the present case the abdomen was appeared normal on ultrasound.

Due to the normal color Doppler examination, hemangioma, teratoma and other solid tumors were excluded. Because all of these tumors may show abnormal vascularity and flow. And also fetal teratomas may enlarge the scrotum greater then 7 cm.³ In this case the scrotum was not so large.

In our opinions the most important factor in differentiating the mass was the observation of peristalsis in the scrotum at sonography. This feature supported the diagnosis of fetal inguinoscrotal hernia.⁴

The reason of the development of inguinoscrotal hernias may be the pressure differences between the abdominal cavity and the scrotum. The abdominal contents may herniate from the weakness place of the abdominal wall.⁴ The reason of the weakness of abdominal wall is not known exactly. Some chromosomal anomalies may be associated with this process.³ But in this case, no associated abnormalities were present which supplied us to think if there was a chromosomal abnormality.

Existence of peristalsis may be absent when bowel ob-

struction and strangulation of inguinal hernia was occurred. We examined the patient by ultrasound weekly and every examination the peristalsis of intestine was observed. The development of bowel obstruction antenatally determines the mode, place and timing of the delivery.⁵ In that situation fetal lung maturity should be assessed and the consultation with a neonatal surgeon should be done in giving the decision of delivery timing, 30% risk of the incanceration in those younger than 1 year of age should be remembered.⁴

That's why the surgical treatment after delivery is quite important for the neonate.

Fetal İnguinoskrotal Herninin Prenatal Tanısı: Olgu Sunumu ve Literatürün Gözden Geçirilmesi

Fetal ingüinal herninin antenatal tanısı zor konur. Burada, 35. gebelik haftasında prenatal tanı konan ingüinoskrotal herni olgusunu sunduk ve literatür ışığında tartışıldı.

Anahtar Kelimeler: İnguinoskrotal herni, Skrotal kitle, İnguinal herni

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