Atypical presentation of fetal inguino-scrotal hernia at 21 weeks of gestation: a case report

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A 29-year-old woman, II gravida 0 para, was referred at “Artemisia Medical Centre in Rome”, at 21 weeks’ of spontaneous gestation due to an enlarged solid mass appearing in the right side of the scrotum. Her past medical and familial history were both unremarkable. Previous sonographic examinations did not showed any evident fetal malformation. The scan revealed a male fetus later confirmed by a normal karyotyping with a 3.3 x 3.0 cm right scrotal solid-mass characterized by a complex echogenicity (Figure 1). The mass was predominantly solid with scattered small echo-free/cystic components. Neither peristalsis nor blood flow were detected inside the mass. The right testis was not identified while the left testis could be seen, displaced peripherally, to lie wedged between the mass and the wall of the scrotum. There were no other sonographically evident abnormalities among the other organs.

At 23 weeks of gestation, another ultrasound scan was performed and the scrotal mass showed no increase in size with the same sonographic features seen 2 weeks prior but with the presence of peristalsis. On the basis of these collective findings and after a multidisciplinary consultation, a suspect of a right inguino-scrotal hernia was supposed; no sonographic signs of an associated bowel obstruction, ascites or intra-abdominal mass lesion were found. However the following weeks the mass remained stable and at 36 weeks’ gestation, its measurements were 4.1 x 4.7 x 4.8 cm. Color Doppler assessment did not demonstrate blood flow. Peristaltic movements of the bowel were also present. The amniotic fluid volume was normal throughout gestation.

The woman had an uncomplicated caesarean section delivery at 37 weeks’ gestation because of a non reassuring fetal-heart tracing. The male neonate was 3300 g, with Apgar scores of 7 and 10 (at 1 and 5 min respectively). Postnatal examination confirmed a right-sided but very easily reducible inguino-scrotal hernia and the neonate underwent surgical repair of it (Figure 2). Postoperative recovery was uneventful and the infant was discharged after 7 days.

Fetal Inguino-Scrotal Hernia (FISH) is a rare condition when isolated, reported in the fetal period in 10-20/1000 live births with a high incidence in low birth weight and preterm babies with 60% located on the right side of the scrotum, 25% on the left side; 15% are

Figure 1


Figure 2
The pathogenetic theory of FISH suggest the key role of congenital and structural factors that act to increase the intra-abdominal pressure forcing some bowel loops through the inguinal canal into the scrotum. Probably in our case the herniation of the bowel began within 20 weeks’ gestation, when the inguinal canal is still open (8) but the low abdominal pressure related to the small abdominal organs is still not sufficient to develop the hernia. Therefore in our case, the early onset of FISH, seems suggest that there are also other pathogenetic mechanisms on the basis of the develop of this disorder, that are unknown to date.

In conclusion, we first report a case of fetal inguinoscrotal hernia present at the time of structural ultrasound examination (22 weeks’ gestation) and subsequently confirmed at 23 weeks’ gestation in a fetus with sonographic findings of a solid mass with bowel herniation.

References