

INTRAABDOMINAL HEMORRHAGIC CYST IN A NEWBORN DUE TO DOMESTIC VIOLENCE DURING PREGNANCY

BİR YENİDOĞANDA GEBELİK SIRASINDA AİLE İÇİ ŞİDDETE BAĞLI İNTRAABDOMİNAL HEMORAJİK KİST

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ABSTRACT

Cystic abdominal masses are relatively common in neonatal period. Among all cystic abdominal masses in neonatal period; mesenteric and ovarian cysts are more common, whereas hemorrhagic cysts are very rare. During pregnancy, hemorrhagic cysts may be occurred due to blunt trauma such as motor vehicle accidents, accidental falls, and violence.

Forthyone-day-old girl was admitted to our clinic with an intraabdominal cyst located in the right ovarian region; which was detected by antenatal ultrasonography,. The postnatal MRI revealed a heterogeneous cystic mass (50x30x30 mm) located in the pelvis. Her mother was exposed to blunt abdominal trauma as domestic violence at her 5th gestational month. The mass was easily removed since it just had a little connection to the mesentery of descending colon. It was thought that the hematoma on the mesentery of colon caused by the maternal trauma. Both ovaries and kidneys had normal appearance. Fortunately, the hematoma did not impair vascularization of the colon or other intraabdominal organs and it only turned into a simple hemorrhagic cyst. The histopathologic examination of the mass was reported as a hemorrhagic and necrotic simple cyst.

Ultrasonography is the method of choice for fetal masses during antenatal period. These masses may need to be evaluated by the abdominal MRI after delivery. Some fetal masses may be associated with blunt trauma during pregnancy as seen in our case. Consequently, the medical history of the mother should be carefully obtained in terms of trauma and domestic violence. To the best of our knowledge, neonatal hemorrhagic cyst due to antenatal blunt trauma was not reported in the literature so far.

Key Words: Intrauterine, trauma, hemorrhagic cyst, domestic violence

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ÖZET:

Yenidoğan döneminde kistik karın kitleleri oransal olarak daha sıktır. Mezenterik ve over kistleri daha yaygındır fakat hemorajik kistler çok nadirdir. Hemorajik kistler şiddet, kazara düşme, motorlu taşıt kazaları gibi gebelik sırasında künt travmalara bağlı olabilir.

41 günlük kız, antenatal ultrasonunda sağ over bölgesinde lokalize intraabdominal kist saptanması üzerine yatırıldı. Postnatal MRI’ da pelviste 50x30x30 mm. heterojen kistik kitle görüntülendi. Bebeğin annesi gebeliğinin 5. ayında aile içi şiddete bağlı künt karın travmasına maruz kalmıştı. İnen kolonun mezenterine küçük bir bağlantısı olan kitle kolayca çıkarıldı. Kolonun mezenterinde anneye ait travmanın neden olduğu hematoma olduğu düşünüldü. Her iki böbrek ve overler normal görünümdeydi. Şanslı olarak, hematoma kolon ve diğer karın içi organların dolaşımını bozmamış ve basit hemorajik kist haline gelmişti. Kitlenin histopatolojik incelenmesi hemorajik, nekrotik basit kist olarak rapor edildi.

Fetal kitleler için antenatal ultrasonografi seçkin yöntemdir. Bu kitlelerin postnatal olarak abdominal MRI ile değerlendirilmesi gerekli olabilir. Bazı fetal kitleler bizim olgumuzda olduğu gibi gebelik sırasında künt travmaya bağlı olabilir. Bu nedenle annenin anemnezi dikkatlice aile içi şiddet ve travma yönüyle alınmalıdır. Bilgilerimize göre, antenatal künt travmaya bağlı yenidoğan hemorajik kist şimdiye kadar literatürde rapor edilmemiştir.

Anahtar Kelimeler: İntrauterin, travma, hemorajik, kist, aile içi şiddet

INTRODUCTION

Cystic masses are relative common in neonatal period. Mesenteric, ovarian and enteric duplication cysts are the main etiology (1). Renal masses, ovarian cyst, enteric duplication cysts, mesenteric and omental cysts, meconium pseudocysts and choledocal cysts should be considered in the differential diagnosis of intraabdominal cystic lesions in the newborn (1-6). Trauma is the most common cause of nonobstetric morbidity and mortality in pregnancy and complicates at least 6% to 7% of all pregnancies (7). The risk of maternal or fetal injury from trauma during the first, second and third trimester is 10% to 15% risk, 32% to 40% and 50% to 54% respectively (8). Ultrasound is an ideal tool for imaging the pregnant

trauma patient (1). Blunt trauma during pregnancy may be the result of motor vehicle accidents, accidental falls, and violence (9).

CASE

Forthyone day old female was admitted with an antenatally with ultrasound detected intraabdominal cyst located in the right ovarian region (Figure-1). The cyst was enlarged to 49x28 mm. She was born in the special obstetric clinic. In follow up ultrasonographic examination postnatally. Postnatally, the pelvic MRI revealed a heterogeneous cystic mass (50x30x30 mm) located in the pelvis (Figure-2). The patient was asymptomatic otherwise and her physical examination revealed no furt-



Figure-1: Ultrasound detected intraabdominal cyst located in the right lower quadrant



Figure-3: Brown fluid filled cystic mass was easily removed since it had just a little connection to the mesocolon (arrow)

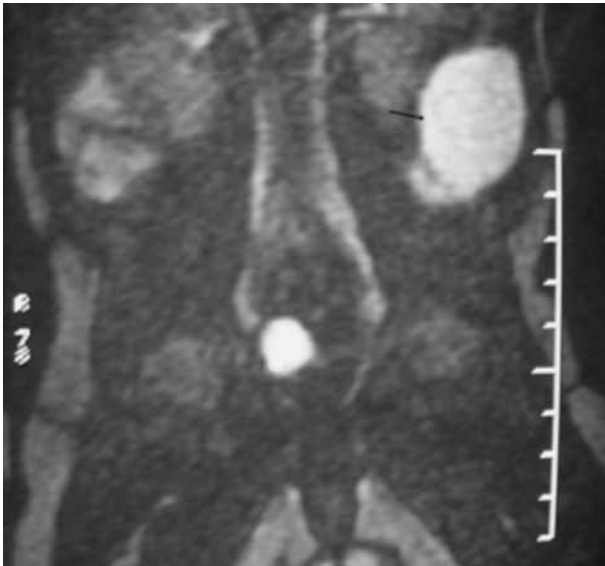


Figure-2: The pelvic MRI revealed a heterogeneous cystic mass (50x30x30 mm) located in the pelvis (arrow)

her pathologic finding. She passed meconium within the first 24-hours. When history of the mother was reviewed, we have been informed that she had an blunt abdominal trauma at her 5th gestational month. Trauma was related to domestic violence. Her husband was kicked to the abdomen in the during debate. Informed consent was taken. At laparotomy, a cystic mass located within the left lower quadrant was found. The cyst was not associated both of the ovaries. Brown fluid filled cyst was easily removed since it had just a little connection to the mesocolon (Figure-3). We considered due to intrauterine trauma hematoma in mesentery of descending colon. Hematoma in mesentery had become simple cyst. Both of the ovaries and kidneys were normal. The histopathologic examination of the mass revealed a hemorrhagic, necrotic simple cyst. It was full with blood and fibrine content which surrounded by thin fibrous capsule (Figure-4). The postoperative course of the patient was uneventful.

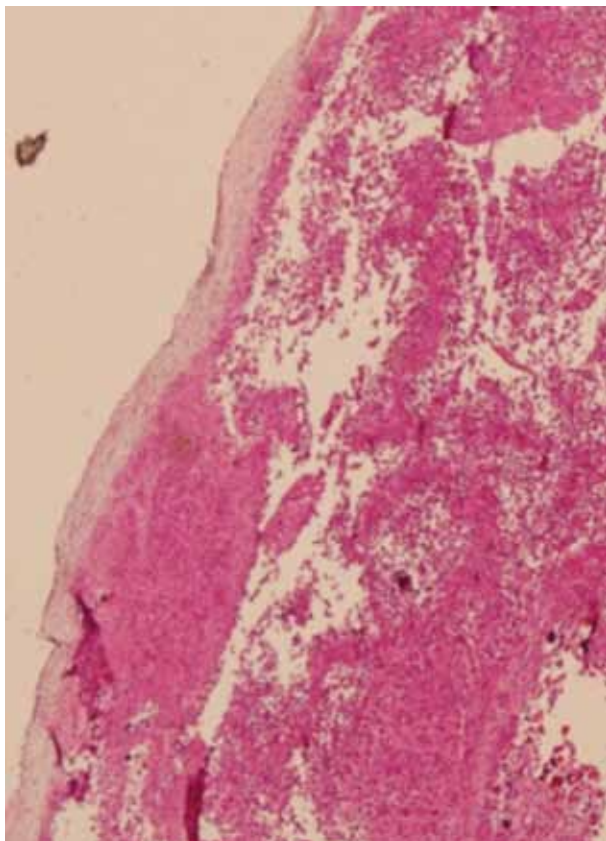


Figure-4: (HEX4) The histopathologic examination of the mass revealed a hemorrhagic, necrotic simple cyst (blood and fibrine content which surrounded by thin fibrous capsule)

DISCUSSION

Cystic masses are relative common in neonatal period. Mesenteric, ovarian and enteric duplication cysts are the main etiology (1). The ovarian cyst is the most common intra-abdominal cystic lesion in the female neonate (10). Neonatal intraabdominal cystic lesions are increasingly referred for evaluation since the advent of routine antenatal ultrasonography. Ultrasonography is useful in pathology detection in the pregnant women, but radiologist often cannot distinguish between the various

intraabdominal cystic lesions (11). Fetal mass can form due to abdominal trauma during pregnancy. Renal masses, ovarian cyst, enteric duplication cysts, mesenteric and omental cysts, meconium pseudocysts and choledocal cysts should be considered in the differential diagnosis of intraabdominal cystic lesions in the newborn (1-3,5-7). Neonatal intraabdominal cysts may have different very rare etiologies including cystic teratomas arising from the mesentery, gastric teratomas, cystic granulosa cell tumour of the ovary and ovarian teratomas and cystadenomas, foetus-in foetu, primary pancreatic neuroblastoma (4,12-15).

Trauma during pregnancy is a major cause of maternal and fetal morbidity and mortality, and occurs in up to 7% of all pregnancies (16). Domestic violence is common during pregnancy and affects about 20% of all pregnancies (17). Many studies estimate that between 4% and 17% of pregnant women are currently victims of domestic abuse (18). The effects of domestic abuse on the fetus especially depend on gestational age, intensity of maternal-fetal aggression and severity of the placental injury (17). Trauma is associated with a high rate of fetal loss, the most common causes being detachment of the placenta and maternal mortality. Placental abruption, premature rupture of membranes, chorioamnionitis, in utero fetal growth retardation or demise, preterm labor and delivery, and miscarriage have been reported following trauma (18).

The effect of such violence on pregnant women is compounded because there are two victims: the mother and the fetus (18). Direct and indirect fetal injury can also occur with domestic violence. Abused women may be unwilling or unable to report their injuries for many reasons(18). Although rare, direct injury occurs from the direct force to the maternal abdomen, uterus, and finally the fetus. This focused, transmitted energy could result in fetal organ damage and hemorrhage, skull fractures and intracranial hemorrhage, and other skeletal fractures (19).

Our case was exposed direct maternal trauma. Antenatally, cyst was diagnosed with ultrasonography, but ovarian cyst was considered. Postnatally, the pelvic MRI

revealed a heterogeneous cystic mass located in the pelvis. The cyst was not associated both of the ovaries. The result of direct maternal trauma, bleeding and hematoma was created in the mesentery of colon. Perchance, this hematoma did not impair vascularisation of colon and other organs. This hematoma had become simple hemorrhagic cyst. At laparotomy, it was easily removed.

As a result, ultrasonography is the method of choice for the fetal masses antenatally. Radiologist cannot always distinguish the exact etiology of the cysts. Therefore, fetal masses need to be evaluated by the abdominal MRI postnatally. Fetal masses may be associated with blunt trauma during pregnancy such as in our case. Consequently, the medical history of the mother should be carefully obtained in term of trauma and domestic violence. To the best of our knowledge, neonatal hemorrhagic cyst due to antenatal blunt trauma was not reported in the literature so far.

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