

Prenatal Diagnosis of Sacrococcygeal Teratoma : A Case Report

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In this case report, we present a case of fetal sacrococcygeal teratoma (SCT) which is diagnosed by prenatal US and define the ultrasonographic features of it. A 28 years old female in 27th gestational weeks referred to our hospital due to premature rupture of membranes and contractions. Ultrasound examination revealed a 13x11 cm. predominantly solid mass containing very small anechoic areas in the fetal rump. Fetus was delivered by cesarean section and died in early prenatal period. [Journal of Turgut Özal Medical Center 1997;4(2):219-221]

Key Words : Sacrococcygeal teratoma, ultrasound, prenatal

Sakrokoksigeal teratomun prenatal tanısı : olgu sunumu

Biz bu vaka takdiminde prenatal olarak ultrason ile tespit ettiğimiz bir fetal sakrokoksigeal teratom vakasını sunduk ve ultrason özelliklerini tarifledik Erken membran rüptürü ve kontraksiyonlarla gelen 27. gebelik haftasında olan ve ultrason ile sakral bölgede ağırlıklı olarak solid komponentli kitle tespit ettiğimiz bu vakada doğum sezeryan ile oldu ve erken perinatal dönemde ölüm meydana geldi. [Turgut Özal Tıp Merkezi Dergisi 1997;4(2):219-221]

Anahtar Kelimeler: Sakrokoksigeal teratom, ultrason, prenatal

Sacrococcygeal teratomas are rare tumors. They have an incidence of 1 in 35000 to 40000, and they are more commonly seen in females (1, 2). Although they may reach huge dimensions they are generally benign tumors and potentially resectable (3). Ultrasonography has an important role in prenatal diagnosis, especially in the second and third trimester of pregnancy. Prenatal determination of their external components and dimensions helps to the obstetric management planning in order to prevent dystocia and fatal hemorrhages during labor. On ultrasonographic examination they can be

seen as a mixt form with cystic and solid components or solitary cystic form polyhydramniosis usually accompanies SCTs (4). In this case report we present a SCT case that we diagnosed prenatally and define the ultrasonographic features. Prenatal diagnosis of SCTs has an important role in obstetric management.

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CASE

A 28 years old female G1P0 presented at 27th gestational weeks referred to our hospital due to premature rupture of membranes and contractions (PROM). On ultrasound examination we found a 13x11 cm. predominantly solid mass containing very small anechoic areas in the fetal rump (Figure 1). Since the patient referred to us with the diagnosis of PROM, polyhydramnios could not be evaluated. Placentomegaly was present and the thickest portion was 6 cm. Hydrops fetalis was absent. Patient had a cesarean section with the preoperative diagnosis of sacrococcygeal teratoma. According to American Academy of Pediatrics Surgical Section (AAPSS) classification (5) our case was type I, i.e. primarily external and has only a small presacral component. By that mean complications which could have been seen in normal labor were prevented. Fetus was born alive with a mass in the fetal rump (Figure 2) and died after approximately one hours due to prematurity and cardiopulmonary insufficiency. Postoperative pathologic diagnosis confirmed our diagnosis.

DISCUSSION

Teratomas are a kind of tumors that are composed of all three germ cell layers and usually do not belong to the place where they are found. They are the most common tumor in neonates, and may be seen in various parts of the body. SCTs constitute the most common (more than %50) teratomas found at birth. Intracranial, palatal, cervical, mediastinal, retroperitoneal, and gonadal locations are among the other locations that they can be seen (6, 7).

SCTs may reach very huge dimensions and they can be diagnosed by prenatal US, especially in 2nd and 3rd trimester, with confidence. Sonography is usually performed for uterine enlargement and obstetric indications like, preeclampsia, increased maternal alpha- fetoprotein, spotting etc (8). Ultrasound examination shows the SCT as a mass that is attached to the fetal rump. They can be seen in three main pattern; 1) A mixture of cystic and solid components, with cystic areas of variable sizes interspersed between the echogenic areas or distributed at the periphery of the mass, 2) Predominantly solid, although occasionally



Figure 1. Longitudinal and axial ultrasonograms at 27 weeks gestation show predominantly solid mass containing very small anechoic areas in the fetal rump. Also placentomegaly is seen.



Figure 2. Female fetus with a sacrococcygeal mass after cesarean section.

containing very small anechoic areas., 3) Purely cystic (4, 9).

Polyhydramnios is seen in most of the congenital anomalies and SCT is one of those congenital anomalies (3, 4, 8). Although the mechanism by which hydramnios is produced is not

known it is seen in the majority of antenatally diagnosed cases in the literature (3). Amniotic fluid alpha fetoprotein and acetylcholinesterase levels are increased in SCT (10). In addition, placentomegaly and hydrops fetalis can be seen. These findings are among the bad prognostic signs for SCT. Most of the fetuses with huge SCTs are born prematurely. And this leads to an increase in morbidity because of lung immaturity and prematurity related complications (8).

Sonographic detection of SCT prenatally is important because it permits prenatal obstetric and surgical management. Severe dystocia with fetal/neonatal demise is frequently encountered in cases delivered vaginally. Gross et al (11) suggested that all fetuses with lesions greater than 5 cm. should be delivered by cesarean section to avoid dystocia and trauma to the fetus. If traumatic delivery is avoided and the lesion resected, the outcome becomes much more favorable (7).

If a fetal teratoma is suspected, a careful search for other anomalies should be performed. Anomalies, especially of the musculoskeletal, renal, and nervous systems, have been reported in association with 18% of sacrococcygeal teratomas (5). The important differential diagnosis of meningocele and to a lesser extent hemangioma should not be forgotten (11). They can be differentiated from sacral meningocele by the characteristic bulging of the latter when the infant's fontanel is compressed. To determine the extent of the disease before surgery, CT can be used (3).

As a conclusion, in the differential diagnosis of fetal sacral masses, fetal sacrococcygeal teratomas should be considered and antenatal US is very important in the diagnosis of congenital anomalies and in the planning of the obstetric management of those anomalies.

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