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Prenatal Diagnosis of Sacrococcygeal Teratomas; Case Report

Sakrokosigeal Teratomun Prenatal Tanısı; Olgu Sunumu

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Sacrococcygeal teratomas are the most common tumors among newborns. Incidence of SCT ranges between 1/35 000 and 1/40 000. Not only the tumor's vascularity but also the accompanying placentomegaly, polyhidramnios and fetal hidrops are the main predictors of fetal outcome. Here we describe our experience of a 22 weeks and 3 days pregnancy complicated with a fetal sacrococcygeal teratoma accompanied with cardiac sequale. In our case SCT was measured 80x78x72 mm (cranio caudal x transverse x antero posterior) in size. After appropriate counselling pregnancy was terminated.

Key Words: ***Sacrococcygeal Teratomas, Prenatal Diagnosis, Pregnancy Termination***

Sakrokoksigeal teratom yenidoğanlarda sık görülen bir tümördür. İnsidansı 1/35 000 ile 1/40 000 arasındadır. Fetal sonucu belirleyen faktörler tümörün damarlanmasına ek olarak mevcut plasentomegali, polihidroamniyoz ve fetal hidropsdur. Bizim sunduğumuz olgu 22 hafta 3 günlük gebeliği tespit edilen büyük bir sakrokoksigeal teratoma eşlik eden fetal kalp yetmezliği olgusudur. SCT 80x78x72 mm (kraniokaudal x transvers x anteroposterior) boyutlarında ölçülmüştür. Daha sonra durum hasta ile paylaşılarak gebelik sonlandırılmıştır.

Anahtar Sözcükler: ***Sakrokoksigeal Teratom, Prenatal Tanı, Gebelik Sonlandırma***

Fetal tumors are rare and approximately in half of the cases they present as sacrococcygeal teratomas (SCT). Incidence of SCT is 1/35000-1/40000. It's more common among females (1,2). Sacrococcygeal teratomas are the most common tumors among newborns as well. Sacrococcygeal teratomas originates from 3 germinal layers. It arises from the pluripotent cell lines in Hensen's node, located on the anterior surface of the sacrum or the coccyx (3,4). Altman classification divides sacrococcygeal teratomas in 4 groups according to its location and components. Although the classification of Altman is descriptive, it has no prognostic value. Recently necessity for a new prognostic classification has been emphasized (5). Benachi A and his friends (6) suggested that it's possible to classify fetal SCT into 3 groups regarding to size, evolution rate and vascularity. Placentomegaly, polyhydramnios, accompanying fetal hydrops in addition to vascularity of the tumor itself are the main predictors of the perinatal outcome (7). This report describes our experience about a case of SCT

CASE

A 42 year old patient, gravida 4 parity 2, with a gestation of 22 weeks and 3 days was referred to our clinic for ultrasound from an obstetrics and gynecology specialist due to a mass noticed during routine fetal examination. Anomaly was not detected previously during patient's sonography performed either at first trimester or second trimester. A 2D ultrasound was performed with the transducer of Voluson E6 (GE Healthcare Austria GmbH, Zipf, Austria). Sonography revealed a sacrococcygeal teratoma extending inferiorly from the sacrum composed of cystic and soft tissue components measuring 80x78x72 mm (cranio caudalxtransversexantero posterior) with accompanying demised lung maturation and increased cardiothoracic ratio (Figure 1). Due to tumor's large size and accompanying sequales of lungs and heart, poor prognosis was estimated. Sonographic description of the relationship between the mass and fetus provided a better understanding of this anomaly for the parents. After

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prenatal counseling, parents opted for a therapeutic abortion. Abortion was induced by simultanenous intravenous oxytocin infusion and vaginal misoprostol. After written informed consent from parents, pregnancy was terminated. A 1270 g female was delivered vaginally with Apgar 0/0 (Figure 2).

DISCUSSION

Percantage of SCTs diagnosed prenatally has increased significantly due to the widespead use of prenatal sonography. As a result of the improvements in prenatal diagnosis, milder cases of SCT can be detected earlier. Only exclusion of this, is the rare cases in which it's difficult to depict the tumor because of its small size (8).

Prognosis of fetal SCT can be unpredictable since some tumors remain stable in size while others grow rapidly. It has been documented that, in such rapidly growing tumors, compression may lead to severe and fatal outcomes. For instance compression of the bladder may cause urinary retention preceding secondary renal deterioration or pulmoner hypoplasia may be observed with a similar mechanism. In the presence of advanced high output cardiac failure, hydrops and placentomegaly, prognosis is even worse. Another poor prognosis criteria is earlier presentation probably due to a more rapid tumor growth compared with later presentation (7). Recently Yoneda and his friends (9) reported that in their study; despite the no significant difference in prognostic factors, 11 terminated cases contributed to improved mortality, compared to ongoing pregnancies complicated with early diagnosed SCT (diagnosis before 22 weeks).

Altough most cases are benign, in some cases SCTs are associated with high morbidity and mortality rates due to its severe complications like 'Maternal Mirror Syndrome'. In 'Maternal Mirror Syndrome' mother's

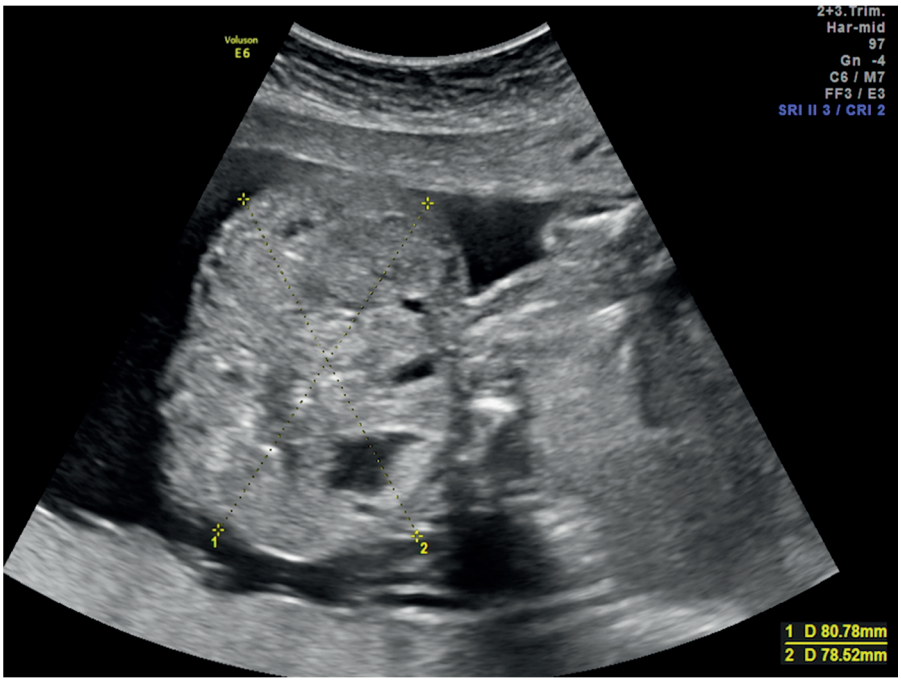

Figure 1: Image of ultrasound

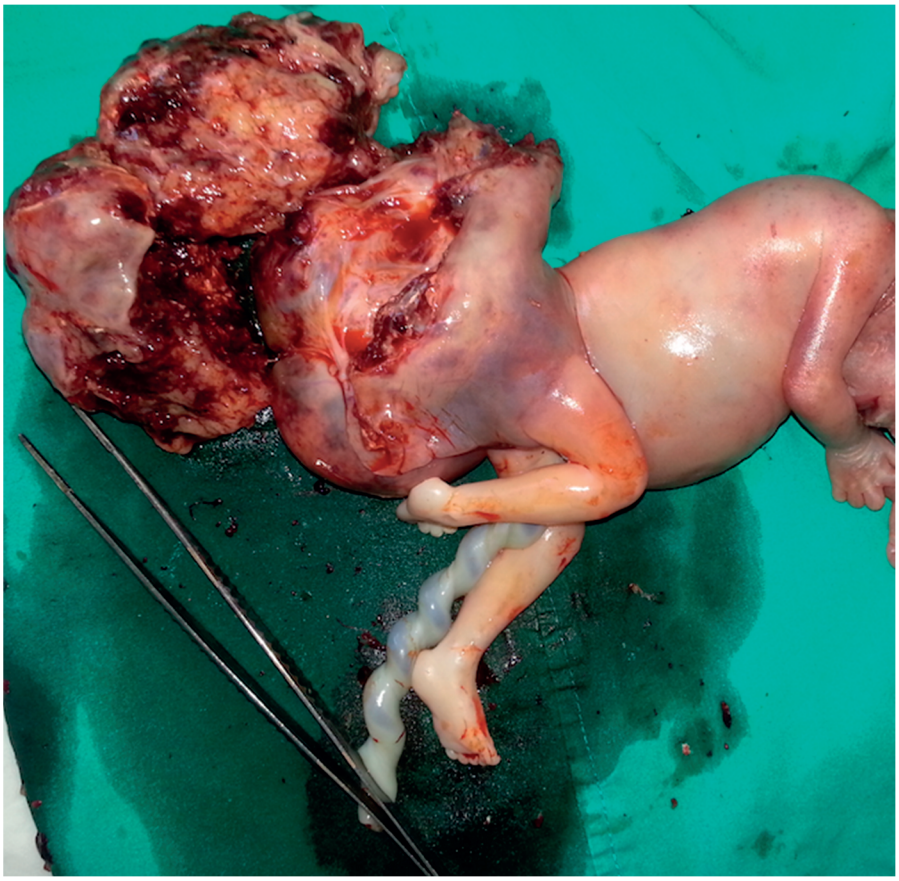

Figure 2: Postpartum image

condition begins to mirror that of sick fetus resulting in a preeclamptic condition. In such severe cases we do not have the luxury of waiting until later in gestation since intervion is deemed necessary. Besides once such complications develop maternal health should be the overriding consideration for any management options (10).

Here, in this case our rationale for recommending termination was based on the poor prognosis as a result of early manifestation. In addition to that since we were far from the margin of viability, it was impossible to salvage the fetus as perls of prematurity could not be underestimated.

In conclusion management of SCTs still remain as a challenge among obstetricians due to its propensity for complications. Therefore more researches must be made in order to distinguish the gray zone of fetal intervention and postnatal treatment.

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