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**Case Report**

# High risk pregnancy with sacrococcygeal teratoma

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## ABSTRACT

Sacrococcygeal teratoma (SCT) is the most common tumor of the newborn period. Most cases are diagnosed prenatally during ultrasound imaging. If fetal hydrops develops, urgent intervention is done to minimize fetal morbidity (or mortality). Management depends on fetal lung maturity and tumor size. Most cases are benign and require only minimal intervention. Once fetal maturity is achieved at 37 weeks, scheduled delivery is planned. Complete resection of tumor including coccyx is vital to prevent malignant recurrence. Strict follow up and AFP monitoring is important. Small percentage become malignant and can occur even after tumor removal.

**Keywords:** Ectopic pregnancy, Pediatric surgery, SCT, Congenital abnormality, Congenital abnormalities, Congenital anomalies

## INTRODUCTION

Sacrococcygeal teratoma (SCT) is a benign tumor that develops at the base of the coccyx and is arises from remnants of the primitive streak that contains layers of pluripotent embryonic germ cells from any of the three primitive cell layers.[1]It is the most common tumor of the newborn period. There is no known cause for teratomas yet.[2] Children mostly get these tumors, which can also be detected prenatally.[3]

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Most cases are benign and require only minimal intervention. Once fetal maturity is achieved at 37 weeks, scheduled delivery is planned. Complete resection of tumor including coccyx is vital to prevent malignant recurrence. Strict follow up and AFP monitoring is important. Small percentage become malignant and can occur even after tumor removal.

We present a rare case of high-risk pregnancy with SCT with breech presentation.

## CASE REPORT

A 29-year-old primigravida presented to OPD (first visit) at 35 weeks 6 days as a referred case in view of SCT in fetus diagnosed by USG at 34 weeks. On examination: uterus over distended, breech presentation, very high floating presenting part, FHS was present and was regular. Patient at 39 weeks period of gestation was planned for an elective caesarean section in view of primigravida with breech. Keeping in view her high-risk pregnancy, a team of obstetrician, neonatologist and pediatric surgeon was involved in her care an alive baby girl was delivered by breech extraction without any trauma to tumour. Baby cried immediately after birth. Liquor was meconium stained. APGAR scores were 7 and 8 at 1 and 5 Minutes

respectively. Birth weight was 3.6 kg. A large (10×8.8×10.1 cm) boggy, SCT was noted.

Tumour excision with coccyx corpectomy was done on post natal day 5. SCT was TYPE 1 with rectal invasion. Post operative course was uneventful. Serial alpha fetoprotein measurement showed a consistent downward trend.

Histopathological examination report was suggestive of immature teratoma (Grade I).

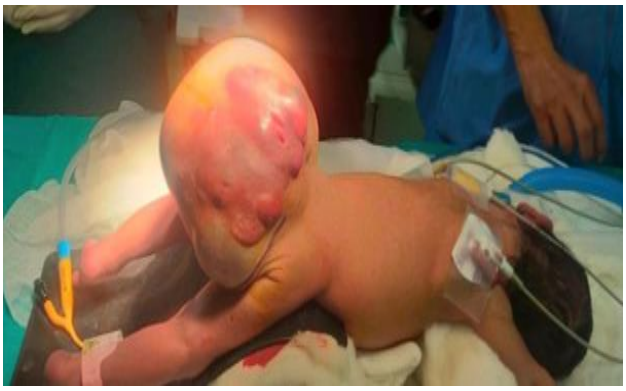

**Figure 1: A neonate with SCT.**

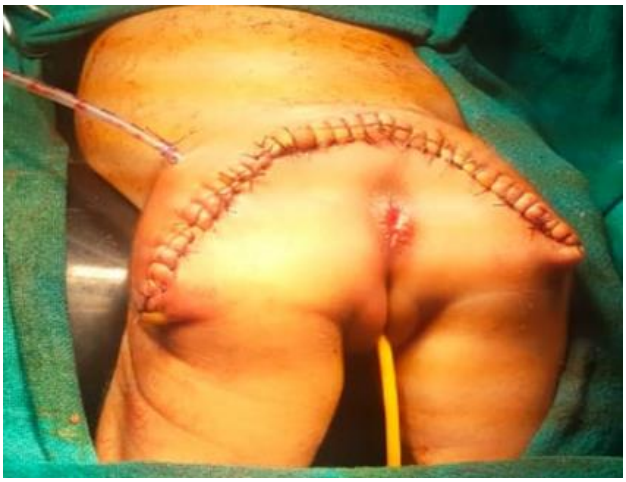

**Figure 2: Post operative image.**

## DISCUSSION

SCT is the most common neoplasm in the fetus with an incidence of 1 in 40,000 births. There is a 3:1 female: male ratio. Despite the fact that female infants are more frequently reported, male infants are more commonly affected by malignant degeneration than female infants.[5,4] In keeping with the previously described idea, our case was a male infant who had a solidly consistent mass in the midline caudal end.

The tumors can be extremely vascular and can lead to high output cardiac failure in the fetus. Diagnosis can be made by 13 weeks. MRI is superior to USG.

Complications include polyhydramnios, tumor hemorrhage, anemia, congestive heart failure, non immune fetal hydrops (poor prognosis). Polyhydramnios can occur due to transudation from the tumor or due to fetal polyuria secondary to the high output state.

The greater likelihood of larger-sized tumors being discovered in fetal life explains why the prognosis for SCT found during the prenatal period is poorer than that of those detected during the newborn period.[6,7]

Early-stage tumors may have a higher potential for growth. When the ratio of tumor volume to anticipated fetal weight rises, the prognosis appears to get worse.[9,8]

Elective section is the mode of delivery with care to avoid trauma to the tumor. The recommended treatment is resection of tumor en bloc with the coccyx in the first week after birth because delays may be associated with malignancy. This can be done by anterior approach (for tumors above S3 region) or posterior approach (for tumors below S3 region).

The ease with which the teratoma can be surgically removed, the timing of the diagnosis, and the type of tissue present in the tumor all influence a fetus or infant diagnosed with an SCT's prognosis.[10]

Poor prognosis in half of the babies-mainly due to hydrops and preterm delivery. Prognosis after postnatal resection depends on the type of the tumor with poor prognosis in tumors with large pre sacral extensions.

Follow up is done every 3 to 6 months for 3 years for risk of malignant recurrence with physical examination, rectal examination and AFP measurement. In a systemic review, serum AFP levels were elevated in 75% of patients with recurrent SCT.[11] However, serum AFP levels are normally also elevated due to hepatic production in neonates

## CONCLUSION

Prenatal diagnosis of SCT is usually made with ultrasound findings of sacral mass in fetus. Continuous fetal monitoring (Serial ultrasounds, doppler, MRI) should be done. Course of management depend on presence or absence of hydrops and fetal lung maturity. Definitive treatment is en bloc resection of tumor in first week of life. Follow up and reevaluation every 3-6 months for 3 years is vital due to risk of malignant recurrence. Prognosis for those without complications is usually very good.

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