Section: OBGY

Case Report

RARE PRESENTATION OF SACROCOCCYGEAL TERATOMA: DIAGNOSTIC AND SURGICAL INSIGHT: A CASE REPORT

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ABSTRACT

Background: Sacrococcygeal Teratoma (SCT) is a relatively common congenital tumor in new born and infants affecting about 1 in every 14,000-40,000 new births. Ultrasonography is the primary imaging modality for prenatal detection and diagnosis, with MRI providing additional diagnostic support when required. SCT can grow rapidly, leading to complications such as polyhydramnios, pre term labor and fetal distress. The tumor size and growth rate are critical factors in determining the risk of malignancy. This case report is unique as, to the best of the authors' knowledge, it represents the first documented instance of SCT from the district of Dera Ismail Khan (D.I. Khan).
Case Presentation: A 27-year-old Asian woman presented at 33+6 weeks' gestation. She had a history of one previous LSCS due to Placenta Previa. Initial ultrasound at 27 weeks revealed a mass anterior to the fetus. Anomaly scan confirmed Sacrococcygeal Teratoma. Obstetrical examination revealed a fetus in breech presentation with a normal heart rate and a symphysio-fundal height of 40 cm. Per vaginal examination showed a closed, regular cervix with no signs of labor or other abnormalities. Rest of the Physical examination was unremarkable. A lower segment cesarean section (LSCS) was performed at 33+6 weeks due to the Teratoma and breech presentation. Intraoperative findings included polyhydramnios and a fundo-anterior placenta. A female baby was delivered with an APGAR score of 5/10 at 1 minute and 8/10 at 5 minutes. The newborn underwent surgical resection of the 8x9 cm Sacrococcygeal Teratoma on day 3 of life. Both mother and infant had uneventful postoperative periods and favorable recoveries.
Conclusion: This case emphasizes the importance of early prenatal diagnosis and multidisciplinary care in managing Sacrococcygeal Teratoma, particularly in resource-limited settings. It also highlights the need for regional documentation of such rare cases to enhance awareness, facilitate early diagnosis, and guide management strategies in similar contexts.
Keywords: Sacrococcygeal Teratoma, Congenital tumor, multidisciplinary approach.

INTRODUCTION

Sacrococcygeal Teratoma (SCT) is a rare tumor that typically affects newborns and young infants, arising from the Sacrococcygeal region.[1] Sacrococcygeal Teratomas (SCTs) are among the most common fetal and neonatal tumors, with an incidence of about 1 in every 14,000–40,000 live births.[2,3] The occurrence of SCT is significantly higher in females, with a female-to-male ratio of 4:1, indicating that females are four times more likely to develop SCT than males.[4,5] SCT-related morbidity and mortality can arise from several complications, including dystocia, preterm birth, and fetal developmental issues. Fetal

surgery offers a promising treatment approach, aiming to improve fetal outcomes and reduce mortality.[6,7] SCT can present with varying degrees of severity, often necessitating prompt diagnosis and management to prevent complications. This case report documents the clinical course and management of a 27-year-old pregnant woman diagnosed with SCT at 33+6 weeks of gestation. Informed consent was obtained from the patient for publishing data regarding the case. Ethical approval was obtained from the Institutional Review Board while reporting this Case.

CASE PRESENTATION

A 27-year-old Asian woman presented to the Out Patient department of Woman and Children Hospital, MTI Dera Ismail Khan, Pakistan for her antenatal checkup at 33+6 weeks of gestation. She was in a consanguineous marriage for 5 years and had a history of two previous pregnancies, including one lower segment cesarean section (LSCS) performed four years prior due to Placenta Previa type 3. Her current pregnancy was conceived with the aid of medication and confirmed through a urine pregnancy test. She initiated regular antenatal checkups late in her second trimester, with her first scan conducted at 27 weeks of gestation. The initial scan revealed a mass anterior to the fetus, leading to a referral for an anomaly scan. The subsequent anomaly scan confirmed the diagnosis of Sacrococcygeal Teratoma. Her past medical history was unremarkable, with no significant comorbidities.

Obstetrical examination revealed a symphysio-fundal height of 40 cm. The fetus was in a longitudinal lie with breech presentation, and the fetal heart rate was within normal limits. A per vaginal examination revealed that the patient was not in labor, with a regular, closed cervix. Rest of physical examination was unremarkable showing no signs of abnormalities. Upon doing Investigations of Patient, comprehensive clinical work-up was performed, including basic and specific laboratory investigations. The patient's random and fasting blood glucose levels, along with HbA1c and Oral Glucose tolerance test, were within normal ranges, ruling out gestational diabetes mellitus. Other laboratory findings were also within normal limits, suggesting no systemic involvement.

Her Anomaly Scan at 27 weeks of gestation revealed identifying a lesion measuring approximately 7x8 cm with both solid and cystic components. The tumor demonstrated vascularity and was observed to originate from the sacrum, extending inferiorly to the cervical os.

Management and Outcome: Given the size and location of the Teratoma, as well as the breech presentation of the fetus, a decision was made to perform a lower segment cesarean section (LSCS) at 33+6 weeks of gestation. Intraoperative findings included a marked increase in amniotic fluid volume (polyhydramnios) and a fundo anterior placenta. The uterus, fallopian tubes, and ovaries appeared grossly normal with no detected anomalies. The baby, a female, was delivered with an APGAR score of 5/10 at 1 minute and 8/10 at 5 minutes. The neonate was found to have a Sacrococcygeal Teratoma measuring 8x9 cm located just below the genital area at the coccyx (type 1). The newborn was immediately referred to a tertiary care facility with a neonatal intensive care unit (NICU) for further management.

The infant underwent surgical resection of the SCT on the third day of life, following a two-day stay in the NICU. Both the mother and the infant's postoperative periods were uneventful, leading to a favorable recovery.

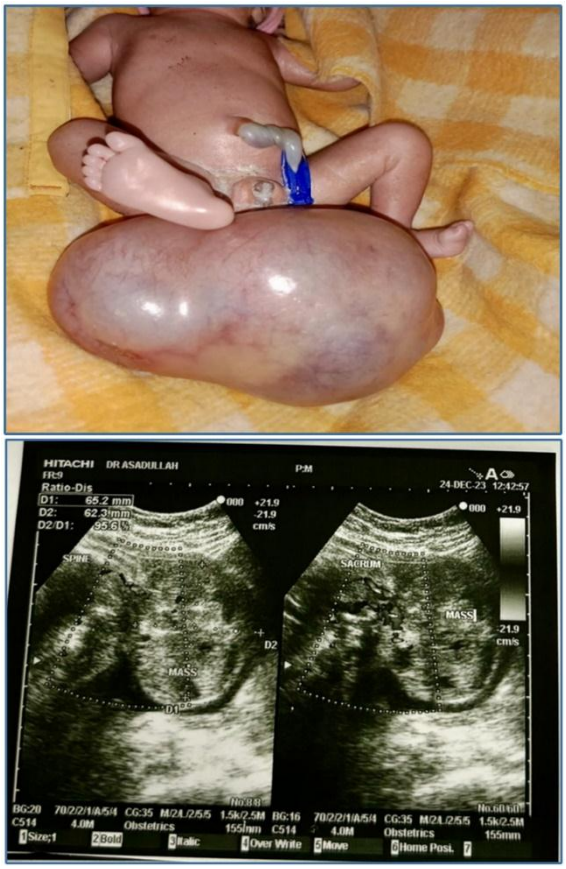

Figure 1: SCT at birth measuring 8x9 cm located just below the genital area.

DISCUSSION

Sacrococcygeal Teratoma is the most common tumors in neonates and are classified based on their location and extension.[6] The Altman classification system categorizes Sacrococcygeal Teratomas (SCTs) into four types based on their location: Type I (45%): Tumors that are mainly external; Type II (35%): Tumors that have both external and significant intrapelvic components; Type III (10%): Tumors that are primarily located within the pelvis; Type IV (10%): Presacral tumors that do not have an external component8. The differential Diagnosis of SCT includes Sacral meningomyelocele (MMC) on antenatal Ultrasound, which can be differentiated on

further investigation by MRI.[9] Early assessment of tumor growth rate in the first two trimesters is vital for identifying high-risk SCTs and predicting their evolution. Ultrasound characteristics that indicate a potentially aggressive tumor include, Rapid growth, Large size, Solid composition, Hyper vascularity, Specific blood flow patterns within tumor arteries (RI: 0.60-0.70).[10,11] Surgical removal of the entire tumor is the established treatment for SCT. Prompt surgery is essential, as delaying treatment can result in serious complications, including tumor rupture, life-threatening bleeding and high risk of recurrence.[1,12,13] In this case, the diagnosis at 27 weeks of gestation allowed for appropriate planning of delivery and neonatal care, resulting in a positive outcome for both mother and child. The prompt referral and subsequent surgical intervention in this case underscore the importance of multidisciplinary care in managing complex fetal anomalies. The decision to perform an LSCS was driven by the breech presentation and the presence of a large Teratoma, which posed a risk of dystocia during vaginal delivery. The successful resection of the Teratoma shortly after birth and the absence of postoperative complications underscore the importance of a multidisciplinary approach in managing such complex cases.

Figure 2: Post-Surgical resection of the SCT on the third day.

CONCLUSION

This case highlights the importance of timely antenatal care and the role of prenatal imaging in the diagnosis of congenital anomalies such as Sacrococcygeal Teratoma. Despite the late presentation, the successful outcome was achieved through coordinated obstetric and neonatal management. The patient was managed through a collaborative effort involving maternal-fetal medicine specialists, pediatric surgeons, and neonatologists. Further studies are needed to enhance the understanding and management of SCT to improve outcomes for affected neonates.

REFERENCES

1. Phi JH. Sacrococcygeal teratoma: a tumor at the center of embryogenesis. J Korean Neurosurg Soc 2021;64(3):406-413. doi: 10.3340/jkns.2021.0015.
2. Shibui Y, Obata S, Hirose R, Nakano R, Setoue T, Miyazaki T, Matsuoka H, Sato T. A case of sacrococcygeal teratoma associated with antenatally acquired urethrovaginal fstula and hydrocolpos. Surg Case Rep. 2023 ;9(1):191. doi: 10.1186/s40792-023-01772-y.
3. Izant RJ, Filston HC. Sacrococcygeal teratomas. Analysis of forty-three cases. Am J Surg. 1975;130(5):617–21. https://doi.org/10.1016/0002- 9610(75)90523-1
4. Zheng XQ, Yan JY, Xu RL, Wang XC, Chen X, Huang KH. A Clinical Analysis of the Diagnosis and Treatment of Fetal Sacrococcygeal Teratomas. Cancer Manag Res. 2020 Dec 23; 12:13185-13193. doi: 10.2147/CMAR.S287682.
5. Li SL, Luo GY. Fetal Malformations Prenatal Ultrasonography. 2nd ed. Beijing: Science Press; 2017:803–810
6. Hu Q, Yan Y, Liao H, Liu H, Yu H, Zhao F. Sacrococcygeal teratoma in one twin: a case report and literature review. BMC Pregnancy Childbirth. 2020 Dec 2;20(1):751. doi: 10.1186/s12884-020-03454-1.
7. Girwalkar-Bagle A, Thatte WS, Gulia P. Sacrococcygeal teratoma: a case report and review of literature. Anaesth Pain Intensive Care. 2014;18(4):449-51.
8. Altman RP, Randolph JG, Lilly JR : Sacrococcygeal teratoma: American academy of pediatrics surgical section survey-1973. J Pediatr Surg 9 : 389-398, 1974
9. Sinha S, Kumar Sarin Y, P Deshpande V. Neonatal sacrococcygeal teratoma: our experience with 10 cases. J Neonatal Surg. 2013 Jan 1;2(1):4.
10. Varlas VN, Clotcea EM, Varlas RG, Pop A, Penes O, Cretoui D, Dima V, Bălănescu L. Immature Sacrococcygeal Teratoma: A Case Report and Extensive Review of the Literature. Diagnostics 2024;14(2):246. doi: 10.3390/diagnostics14030246.
11. Kirkinen, P.; Partanen, K.; Merikanto, J.; Ryynänen, M.; Haring, P.; Heinonen, K. Ultrasonic and Magnetic Resonance Imaging of Fetal Sacrococcygeal Teratoma. Acta Obstet. Gynecol. Scand. 1997, 76, 917–922
12. Martin RJ, Fanaroff AA, Walsh MC. Neonatal perinatal medicine. 10th ed.New York: Mosby; 2015.
13. Musharaf KA, Ahmed B. Sacrococcygeal teratoma, case report. Gezira J Health Sci. 2009; 5(1):84-7.