Original Research Article

CASE REPORT ON SACRO-COCCYGEAL TERATOMA

Abstract

Introduction: The terms sacrococcygeal and sacrococcygeal refers to the sacram sacrum and coccox coccyx bones. Teratoma refers to a tumour. It's a rare tumour that appears near the distal end base of the tailbone in new-borns (coccyx). It's the most common congenital tumour, and it can appear at any time throughout pregnancy. It occurs in about 1/35,000 to 1/40,000 of all live births. Female new-borns are more likely to have this birth defect than male ones. **Clinical findings**: Gluteral Gluteal swelling, tenderness at swelling site, pain while passing stool with blood, difficulty in sitting. **Diagnostic Evaluation:** HB 8.5gm%, mchc MCHC 34.1%, MCV 71.6fl, MCH 24.4Pico gm, total RBC count 3.53 million/cu mm, total WBC count 13100/cu mm, HCT 25.3%, total platelet counts 4.78lack/cu mm, monocyte 4%, granulocytes 58%, lymphocytes 36%, RDW 17.2%. **Peripheral smear** parameter value RBC - predominantly normocytic mildly hypo chromic with mile anisopaikilocytosis aniso-poikilocytosis showing plenty of micro cyst and occasionally pencil cell platelets adequate on smear known and parasites. **AFP** (alpha fetoprotein) - 1.41 **BHCG** - 2.39, **KFT**- urea - 27, Creatinine - 0.4, Sodium - 143, Potassium, **MRI** - large mass with fat and cystic areas in gluteal region, pelvic hematoma, haematoma, cystic lymphatic malformations. **Therapeutic intervention:** Blood transfusion, Inj. Cefotaxime 750mg IV x BD, Syr. Azee 4ml x OD, Tab. Folic Acid 5mg x OD, complete resection (ot name) **Outcomes:** After treatment, the child show improvement. Now child condition normal. Signs and symptoms are cleared.

Keywords: Teratoma, sacrococcygeal, coccyx, gluteal region, tumor, tumour, new born.

Introduction:

Sacrococcygeal teratoma are rare tumours that grow in the sacrococcygeal region at the base distal end of the spine, where the tailbone (coccyx) meets join the spine. Although the majority of these tumours are benign (noncancerous), they can grow to be extremely large and, once diagnosed, must always be surgically removed.(1)

A tumour that develops out from its anatomic location and is made up of diverse tissues produced from the layers of three germ cell, Ectoderm, mesoderm, and endodermal tissues are found in SCT.(2) It frequently appears at the coccyx, where the greatest number of primitive cells can be found seen for an extended period of time.(3)

There are two types of tumours: benign (mature) and malignant (immature) composed of embryonic elements. Neonatal teratomas (68 per cent) and older children have more mature teratomas (73 per cent).(4)

A teratoma is a real tumour or neoplasm made of numerous tissues of different kinds foreign to the part in which it forms, Willis explained.(5)

The cause is unknown. Because tumours are made up of two or three germ cell layers, they frequently contain a variety of tissue types. SCT is most commonly found in newborns, babies, and children under the age of four, though it has also been observed in adults.(6)

Solid and cystic (fluid-filled) components of the tumour are common. A significant blood supply is present in some solid tumours. During pregnancy and the postpartum phase, excessive vascularity might pose problems. SCT, like other teratomas, can develop to be as big as the newborn. Newborn tumours are normally benign, but a handful can be cancerous. The risk of perinatal death remains significant for a foetus with SCT.(7)

Investigation:

History collection, Physical examination (regular pelvic or rectal **examination)**, Blood examination, MRI, Ultrasonography radiological screening, etc.

Management: Complete surgical removal is the suggested first treatment for SCT (i.e., complete resection). A little SCT is best approached via the perineum; a large SCT may necessitate an additional approach via the abdominal. The coccyx, as well as sections of the sacrum, should be resection. Reattaching of the small ligaments with muscles once linked to a pelvis should be part of the procedure, thereby recreating the posterior perineum. If you don't, you're more likely to get a perineal hernia later in life.

Patient Identification: A female child 5 year old A 5-year-old girl from Pathroadkamatkar purai tahsil achalpur district Amravati admitted in paediatric ward no. 22, AVBRH on 31st May 2021 with a known case of Sacrococcygeal teratoma. She is 14 kg and height is 101 cm.

Present medical history: A female child of 5 year old A 5-year-old girl was brought to AVBRH on 31st May 2021 by her parents with a complaint of Gluteal swelling from 15 days of life, with tenderness at the swelling site, pain and bleeding blood while passing stool and urine, difficulty in passing stool, difficulties in sitting since for 3 days before presentation. She was admitted in Paediatric ward. no. 22. She is a known case of sacrococcygeal teratoma, her AFP (Alpha- feroprotein) is was 1.41 The child is weak and inactive on admission.

Past medical history: Patient was followed-up from birth follow up in at Amravati they done where an MRI of pelvis and gluteal region was done and the report was suggestive that of large mass with fat and a cystic area in the gluteal region and pelvic haematoma with fatty and single areas. She had a diagnosis of sacrococcygeal teratoma at the time of birth with Sacrococcygeal teratoma.

Family history: There were are four members in the family. My The patient was diagnosed to have a Sacrococcygeal teratoma. type of The marriage of the parents was in non-consanguineous marriage. All other members of the family were not having complaint in their health except for the patient who was being admitted in hospital.

Past intervention and outcome: The My patient was diagnosed with sacrococcygeal teratoma at the time of birth from that time onwards she was admitted to hospital time to time for treatment of the disease. It was found to be effective as the patient does not develop complication till then.

Clinical findings: Gluteal swelling, tenderness at swelling site, pain while passing stool with blood, difficulty in sitting.

Aetiology: The cause of sacrococcygeal teratomas is unknown.

Teratomas are caused by problems in the body's growth process, which involves the development and competency of cells. Sacrococcygeal teratomas are germ cell tumours. Germ cells are the cells that form the embryo and gradually become the cells that form the reproductive system of male and female. The testes or ovaries (gonads) or the lower back are the most common sites for germ cell cancers.

Physical examination: There is not much abnormality found in head-to-toe examination, the child is lean and thin and having dull look. She is weak and not so cooperative. Though it is found that the child is having Abdominal distension. Rectal mass causing pressure on rectum

Diagnostic Assessment: HB 8.5gm%, MCHC 34.1 %, MCV 71.6 Fl, MCH 24.4 Pico gm, total RBC count 3.53 million/cu mm, total WBC count 13,100/cu mm, HCT 25.3%, total platelet counts 4.78lack/cu mm, monocyte 4%, granulocytes 58%, lymphocytes 36%, RDW 17.2%.

Peripheral smear parameter value RBC - predominantly normocytic mildly hypochromic with mile aniso-poikilocytosis showing plenty of microcyst and occasionally pencil cell platelets adequate on smear known and parasites. **AFP** (alpha fetoprotein) - 1.41, **BHCG** - 2.39 **KFT** urea -27, Creatinine 0.4, Sodium143, Potassium 5. **MRI** - large mass with fat and cystic areas in gluteal region, pelvic haematoma, cystic lymphatic malformations.

Therapeutic intervention: Blood transfusion, Inj. Cefotaxime 750mg IV x BD, Syr. Azee 4ml x OD, Tab. Folic Acid 5mg x OD, complete resection (ot name)

Discussion:

A female child of 5 years old from pathroad kamatkar purai tah. Achalpur dist. Amravati was admitted to pediatric ward no 22, AVBRH on 31st May 2021 with a complaint of gluteal swelling, tenderness on swelling site, pain and blood while passing stool, difficulty in sitting .She is a known case of Sacrococcygeal teratoma which was diagnosed at time of birth. As soon as she was admitted to hospital investigations were done and appropriate treatment were started. After getting treatment, she shows great improvement and the treatment was still going on till my last date of care.

Sacrococcygeal teratoma: The population-based study of prevalence and antenatal prognostic variables in Southern Sweden was the subject of a study. The foetuses and neonates detected with SCT in southern Sweden between 2000 to 2013 were used in this investigation. Antenatal ultrasounds, records, and different testing were all evaluated and analyzed.(8) SCT occurred in 1 out of every 13,982 people (In a cohort of 265,658 live births, 19 children were born). In 74% of cases, a prenatal diagnosis was made, there were no stillbirths or intra uterine deaths and the fatality rate were 11%. Four problematic SCT cases (21%) had such a considerably larger tumour size at week 20 of pregnancy (P=0.048), a

significantly higher tumour cell development rate (P=0.003), but was more commonly affected with polyhydramnios (P=0.01) with predominantly solid/mixed structure (P=0.001).(9)

Conclusion:

sacrococcygeal teratoma (SCT) is perhaps the most frequently diagnosed tumour in infants, with a reported incidence of 1:35000-40000 babies born, with girls will be more typically affected (4:1). Germ tumours are classified as either benign or malignant with benign types seem to be more likely to have in new-borns. Antenatal ultrasonography has been used to identify an SCT, and MRI scan also used to characterize its measurements and composition, as well as the kind of tumor and thus its relationship to distinct organ. When the tumour is more than 5 centimetres in diameter, a caesarean section is indicated to prevent problems during natural birth. Surgical dissection with a full excision of the coccyx ("en bloc" resection) is the primary treatment for SCT; malignant tumours may require adjuvant chemotherapy. Urinary bladder or intestinal disorders, lower limb muscle numbness or paralysis, and tumour reappearance including probable cancer are also long-term consequences. Preventive approaches, such as prenatal screening and genetic counselling, are also critical. The My patient improved dramatically after receiving treatment, and the treatment was continued until my last day of care.

Ethical Clearance: Taken from institutional ethics committee.

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