A 44-year-old female patient presented with non-radiating, low-back ache of two weeks duration. She had been operated previously for a presacral mass lesion which was diagnosed during the neonatal period. Operative details were unavailable. No history of altered bowel or bladder habits and no complaints of passing blood in urine or stools. Alpha Feto Protein (AFP) level was 5.3 ng/ml.

**Imaging Findings:**

Plain computed tomography (CT) image revealed a cystic retro rectal mass lesion measuring 8.9x8.4x8 cm with a fatty and cystic post-sacral component. The lesion showed minimally enhancing thin septations and lobulated smooth margins. There were no internal calcifications. There was no erosion or destruction of sacrum and coccyx. Magnetic resonance (MR) images showed the above lesion to be predominantly hypointense on T1 and T2 with internal septations with few surrounding multiloculated T1 hypointense and T2 hyperintense cystic components. The lesion is seen to extend posteriorly beneath the coccyx and further along the subcutaneous plane till the S4 vertebral body. There was no obvious intradural extension. Pelvic organs appeared normal. Few small bilateral external iliac lymph nodes were seen.

**Discussion:**

The presacral space is defined by following anatomical boundaries. Anteriorly: the posterior wall of the rectum. Posteriorly: sacrum and coccyx. Laterally: iliac vessels and ureters. Superiorly: peritoneal reflection. Inferiorly: by the pelvic floor muscles. [1] Most lesions may be asymptomatic while symptoms can occur due to mass effect from large lesions or secondary infection. [1,2]

The presacral or recto rectal masses can be broadly divided into the following categories: congenital, osseous, mesenchymal, neurogenic and mesenchymal. They may be benign or malignant. Sacrococcygeal teratoma is the most common presacral mass in children containing derivates from all the three germ cells layers. [2] Anterior sacral meningocele can be identified by a communication between meningocele and subdural space, absent in above
case. In half the cases they may be associated with other congenital anomalies and may be associated with scimitar-shaped sacral bone defect. Osseous lesions may include giant cell tumour, aneurysmal bone cyst, osteosarcoma, chondrosarcoma and solitary plasmacytoma.

Extra-adrenal myelolipoma can be a rare differential showing macroscopic fat and occasionally haemorrhage. Macroscopic fat does not lose signal on out-phase images and has higher attenuation values than retroperitoneal fat as it is admixed with haematopoietic tissue [1,3] Liposarcomas are aggressive, non-encapsulated, infiltrative retroperitoneal tumours containing fat. Enhancing solid components, calcifications or ossifications suggest poor prognosis. [3]

Increasing rate of malignancy can be there in recurrent lesions of sacrococcygeal teratoma which was the diagnosis confirmed in this case. [4] Biopsy from the mass and remnant cyst wall showed epithelia from all three germ layers and cyst wall lined by squamous epithelial cells and few salivary gland tissues. These tumours are more common in females but have higher rate of malignancy in males. Surgery is preferred mode of treatment and removal of coccyx is associated with lower recurrence rates. [5]

Other presacral lesions to be considered are tailgut cyst and lymphangioma which tend to be cystic multilocular while epidermoid cyst is unilocular with diffusion restriction. Rectal duplication cyst shows communication with anorectal lumen.[6] Description of anatomical relations and characteristic imaging findings helps better characterisation of presacral masses in addition to guiding appropriate management. In this case the mass was successfully and completely excised.

Written informed patient consent for publication has been obtained.

**Differential Diagnosis List:** Presacral myelolipoma and well-differentiated liposarcoma, Recurrent sacrococcygeal teratoma with no radiological features to suggest invasion or metastasis

**Final Diagnosis:** Recurrent sacrococcygeal teratoma with no radiological features to suggest invasion or metastasis

**References:**

Description: Axial plain CT image shows a well-defined cystic lesion in the pelvis, posterior to rectum and anterior to coccyx. A small component showing similar density as subcutaneous fat is seen to extend posteriorly from the lesion. No areas of haemorrhage or calcification are noted. Origin:
Department of Radiology, KLES Dr. Prabhakar Kore Hospital & Medical Research Centre, Belagavi, India 2019
Description: Arterial image shows minimal, smooth enhancement of thin septations within the lesion. No enhancing nodules are seen. Origin: Department of Radiology, KLES Dr. Prabhakar Kore Hospital & Medical Research Centre, Belagavi, India 2019
Description: Mixed intensity hypointense cystic lesion with septations and few small isointense nodules are seen on axial T1 weighted MR image with a small posterior cystic and fatty component.
Origin: Department of Radiology, KLES Dr. Prabhakar Kore Hospital & Medical Research Centre, Belagavi, India 2019
**Description:** Anterior portion of the mass lesion shows heterogeneously hypointense component on T2 sagittal image with surrounding hyperintense cystic areas and a posterior cystic and fatty component. There is no communication with the spinal canal. **Origin:** Department of Radiology, KLES Dr. Prabhakar Kore Hospital & Medical Research Centre, Belagavi, India 2019
Figure 5

Description: Increased diffusivity is seen in cystic components of the mass lesion on diffusion weighted MR image. Origin: Department of Radiology, KLES Dr. Prabhakar Kore Hospital & Medical Research Centre, Belagavi, India 2019
Description: There is mild diffusion restriction in one of the components of the lesion on corresponding ADC image. Origin: Department of Radiology, KLES Dr. Prabhakar Kore Hospital & Medical Research Centre, Belagavi, India 2019