

# Bluetooth Technology in Pacemaker

**Pacemaker** is more than a century old technology, it was told to be the invention of the 19th century. Ever since the inception the technology is continuously progressing, from big battery size to small capsule like leadless pacemakers and from single chamber to physiological pacemakers. The follow up of these patients is always challenging. Patient needs to travel periodically to only some selected centers to get the pacemaker interrogated for its well being. There is a good news. Now pacemaker and heart failure devices like ICD and CRT D are Bluetooth enabled. We again had privilege to implant the first one in state.

The interrogation and information of the functioning of these devices can be transferred to us simply via a mobile - based application. Particularly important during pandemic when office visits for pacemaker checkups are difficult. As soon as the device is implanted, a mobile app is downloaded in patient's smartphone, pairing is done and now the smart phone becomes the transmitter.



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## RARE CASE OF RETRORECTAL TUMORS

**R**etrorectal tumors are an uncommon group of lesions, originating from one or more of the three germ cell layers that occupy the retrorectal or presacral space. The reported incidence is less than 1% likely due to incomplete evaluation, given the indolent nature of these tumors with often vague and nonspecific symptoms. These tumors are often heterogeneous and are more often congenital in nature, of which most are developmental cysts, including epidermoid, dermoid, enterogenous, tailgut cyst (TGCs), and teratomas. Cystic lesions are seen most commonly in women. Most solid lesions are either chordomas or sarcomas, and they are common in males with significantly higher malignant potential.

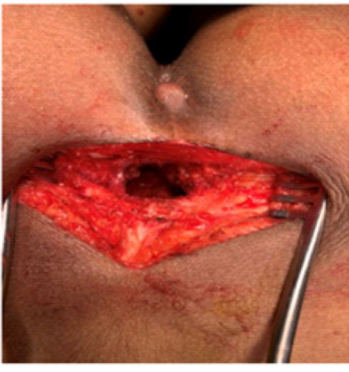


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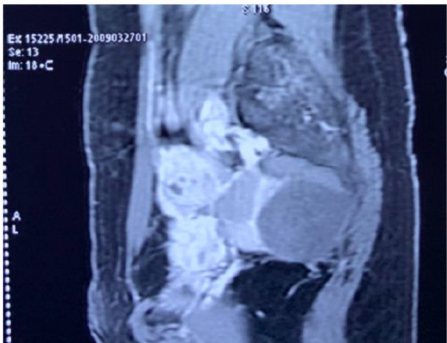
Given the bony confines of the pelvis and its complex gastrointestinal, genitourinary, neurologic, and vascular proximity these lesion needs proper planning in view of the potential need of multivisceral resection, often the multidisciplinary team is required for the optimum outcome of the patient. Retrorectal tumors can grow to fill the retro rectal/presacral space confined by mesorectum anteriorly, sacrum posteriorly, superiorly peritoneal reflection superiorly, inferiorly by retroscarpal fascia inferiorly and by ureters & iliac vessels laterally and lead to the displacement of pelvic organs. The retrorectal space contains loose connective tissue, the middle sacral artery, superior hemorrhoidal vessels, and branches of sympathetic and parasympathetic nerves.



Paracoccygeal incision in prone position. Lesion decompression under control



Post lesion excision



MRI Pelvis showing multicystic lesion in presacral space.

Usually, their symptomatology is vague, like pelvic or low back pain, constipation, a palpable mass, or obstructive type symptoms. Classically, this pain is aggravated by sitting and ameliorated by standing or walking. But if they involve the presacral nerve plexus patient may present with loss of bowel and bladder control.

A careful and focused perineal and anorectal physical examination along with cross-sectional imaging (preferentially MRI) and biopsy for the solid and heterogeneous tumour is necessary for the decision making for the treatment. The surgical approach is dependent upon the location of the tumor within the pelvis. There are three possible approaches to the resection of a retrorectal tumor: anterior- only (trans-abdominal), posterior only (perineal or parasacral), or combined anterior-posterior approach. Accurate preoperative imaging is vital in defining the relationship of the tumor to the sacrum and the margins of resection, thus defining the appropriate approach that should be undertaken. Lesions lying entirely below S3 may be removed with a posterior-only approach through a parasacral/paracoccygeal incision. Tumors extending above S3 should be approached either from the abdomen alone or with a combined anterior and posterior approach, depending on the need for concomitant sacral resection.

A 32-year-old married female presented with a lower backache of 4 years duration, which was vague, dull, aching in nature. MRI pelvis was done, that demonstrated largely. 6.4x6.8x6.8 cm size multicystic lesion in presacral space with small foci of calcification possibility of tailgut cyst /epidermoid cyst or sacrococcygeal teratoma.

After proper evaluation and counseling, the patient was taken for surgery. As the lesion was large, predominantly cystic, and located in the lower part of the presacral space, the posterior approach in the prone jackknife position (Kraske Procedure) was decided for the surgical resection. Part of the coccyx has been removed to gain access. The first lesion was decompressed under control and then was removed. The patient resumed a normal diet and discharged with normal bowel and bladder function on the 2nd postoperative day. Later on, her histopathology confirmed the diagnosis of mature teratoma.