

CASE REPORT

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Pararectal epidermoid cyst: A case report

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Abstract

Para-rectal presacral masses, though rare in clinical practice pose a diagnostic and therapeutic challenge to surgeons. Symptoms if present are usually associated with mass effect on rectum or lower urinary tract. Pre-operative diagnosis using imaging modalities may be misleading. The role of pathological diagnosis is debatable as complete surgical excision is the mainstay of management. The surgical approaches may vary depending upon site, size, relation to rectal wall, sacral vertebra and presence of abdominal component of the lesion. In this case report, we present an elderly lady who presented with a swelling in the coccygeal area associated with discomfort and how we went ahead with management.

Keywords: Pararectal mass, epidermoid cyst, presacral mass, congenital cyst

Introduction

Epidermoid cysts in the peri-rectal region are considered to originate from primordial germ layers of hind-gut and are congenital in origin [1]. Seen rarely in surgical practice, the incidence has been reported to be as low as 1 in 40,000 to 1 in 63,000 hospital admissions [2]. These are typically seen in middle-aged female with female:male ratio of 3:1 [3]. 50% of these developmental cysts remain asymptomatic [4]. Symptoms associated are usually related to mass effect on the rectum, lower urinary tract or due to infections [5–9]. Surgical management by excision forms the main stay of management [3]. The approaches described in literature includes abdominal or combined abdominal and perineal approaches, combined approaches being rarely reported [10,11].

Case report

56-year-old female patient with no known comorbidities presented with a swelling in coccygeal area of six months duration which

was associated with discomfort while sitting. As per history, the swelling was initially small, of the size of 3x3 cm which had gradually progressed over six months to the size of almost 5x5cm. It was not associated with pain, discharge or any abnormalities while passing stools. There was no history of trauma, weight loss, anorexia, bone pains, cough or hemoptysis. Clinical examination revealed a firm, non-tender swelling of the size of 6x5cm extending from Sacro-coccygeal area to 3cm short of anal verge and extending to both gluteal area more towards the right side horizontally. The margins were well defined and the skin overlying the swelling was normal without any punctum or signs of inflammation. Per-rectal examination revealed firm mass along anterior rectal wall from 11 o'clock to one o'clock position bulging in to the lumen. Rectal mucosa was not involved. A clinical diagnosis of benign pararectal mass was made at this juncture.

All hematological and biochemical parameters were within normal limits. Contrast Enhanced Magnetic Resonance Imaging (CEMRI) revealed a large well-encapsulated multiloculated cystic lesion in the right pararectal, ischiorectal and right para-anal region (1.2x6.3x5.8cm). It was extending postero-superiorly

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till S3-4 intervertebral disc, inferiorly subcutaneous plane of right buttock, poster-laterally pelvic floor muscles and medially rectum and anal canal causing deviation of rectum towards left without involvement. Radiological diagnosis made was likely epidermoid cyst. Fine Needle Aspiration Cytology (FNAC) of the swelling revealed thick brownish greasy material. Microscopic examination of aspirate slides revealed numerous anucleate squames and few mature squamous epithelium cells. No atypical cells or giant cells were seen. Based on these findings a diagnosis of epidermal cyst pararectal region was made.

Patient was taken up for excision of cyst under spinal anesthesia in prone jack-knife position. Intra-operative findings included 7x5cm cystic lesion abutting the rectal wall, but with a distinct fat plane between the lesion and lower rectum. The cyst was dissected all around with complete clearance of its walls in spite of inadvertent puncture of its wall during dissection. The wound was primarily sutured after hemostasis with suction drain in situ. The drain was removed on post-operative day (POD) five and patient was discharged.

The cut section of the specimen revealed sebum-like material in the lumen. On histopathological examination, sections revealed cystic spaces lined by epithelial lining which was stratified squamous epithelium with granular layer filled with keratin flakes. Focal area showed dense infiltration of lymphoplasmacytic cells, eosinophils, few neutrophils, macrophages and foreign body giant cells along with cholesterol clefts forming keratin granuloma (surrounding area). There was no evidence of any atypia.

Patient reported on POD seven with serous discharge from the wound, which was managed with daily dressing and oral antibiotics. The surgical site infection settled by POD 12 and sutures were removed on OPD follow-up on POD 15. Follow-up after three months revealed well healed surgical scar with no evidence of recurrence clinically.



Figure 2. MRI showing the cyst

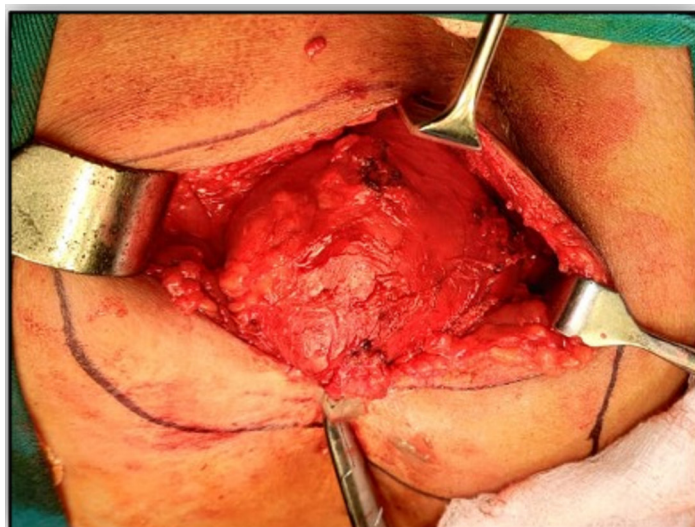


Figure 3. Intra-operative findings

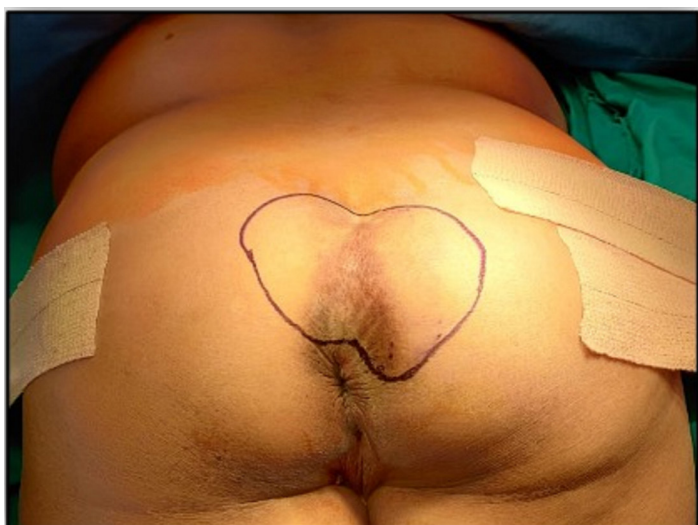


Figure 1. Extent of the cyst

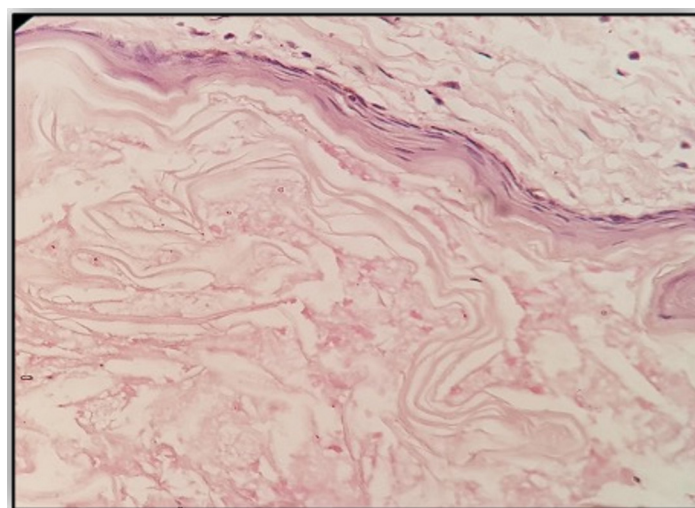


Figure 4. High Power microscopic view

Discussion

Peri-rectal epidermoid cysts are slow growing lesions usually found in the space bounded by rectum anteriorly and sacrum posteriorly [1,12]. These cystic masses are classified into two groups - developmental cysts and teratomas. Though these lesions are rarely encountered in clinical practice, developmental cysts which include epidermoid, dermoid, enteric or neurenteric cysts, are the most common congenital anomalies encountered in retro-rectal space [3,13,14].

Presenting symptoms vary depending on the site, size and origin of the mass and whether it is benign or malignant [1]. One half of the patient present with compression symptoms in the form of constipation, painful defecation or lower abdominal pain (rectum) and dysuria or urinary frequency (lower urinary tract) [5–8]. Complications also present in the form of infection, bleeding or malignant degeneration [5]. Pre-operative radiological diagnosis is often difficult in such cases. Out of the imaging techniques available, magnetic resonance imaging (MRI) is more specific and confirms the localization. However radiological misdiagnosis is not uncommon in literature [10,15,16]. In our case CEMRI was done which aptly gave the diagnosis of likely epidermoid cyst, confirmed later on HPE. The role of pre-operative pathological diagnosis is controversial due to the fact that most of the cysts remain benign and complete surgical removal is the ultimate aim of management [1].

Surgical removal of such lesions is mandatory owing to the fact that these cysts can be complicated by infection or malignant degeneration [17,18]. The approach may vary depending upon size, site and relation to sacral vertebra and the lobulations (uni or multi-lobulated) [19].

Various approaches include trans-anal, posterior ano-perineal, anterior abdominal and combined posterior and abdominal [2]. Laparoscopic combined approaches for cysts with an abdominal component have also been reported in literature [10]. In our case, a posterior ano-perineal approach was undertaken due to the location of the cyst and its relation to the lower rectal wall. Histopathological examination of the lesions has a significant role in confirming the diagnosis as well as differentiating benign from malignant tumors. Follow-up gains importance due to the risk involved in recurrence as well as malignancy in incompletely resected lesions [13,14].

Conclusion

Para-rectal presacral masses usually remain asymptomatic. Surgical excision is mandatory for all such lesions due to the high risks of infection as well as malignancy involved. Benign tumors carry good prognosis. Meticulous surgical dissection can prevent the complications associated with surgery as well as recurrence.

Conflict of interests

The authors declare that they have no conflict of interest.

Financial Disclosure

All authors declare no financial support.

Patient informed consent

Written informed consent was taken from the patient during surgery as well as using the information with confidentiality of the personal details of the patient for publication purposes.

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