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Case Report

Clinical, histopathological, radiological diagnosis of retro rectal developmental cysts, its review and differential diagnosis - A rare case report

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Abstract

A 61 years female multiparous Indian woman presented in our surgical outpatient Department at Sri R.L. Jallappa Hospital Kolar, with chronic lower abdominal pelvic pain and swelling since 2 months, a retro rectal cyst was diagnosed keeping in mind Benign Cystic lesions like ovarian, recto rectal, hydatid and other degenerative cystic lesions. Retro rectal cysts have been classified into traumatic, infective, degenerative, neoplastic, and developmental, according to their origin. This paper focuses on the developmental variety of retroperitoneal pelvic cysts, particularly those of mesothelium, mesonephric, or paramesonephric origin. Their clinical presentations depend on their location; they may be mesenteric, paraovorian, or vaginal. The pathogenesis and embryologic, diagnostic, and therapeutic aspects are reviewed and a case report is presented.

Keywords: Retro-rectal developmental cyst, benign degenerative cysts, ovarian, paraovorian cysts, mesenteric cysts.

1. Introduction

Developmental cysts are the most common retro rectal cystic lesions in adults, Retro rectal cystic lesions in adults are rare, and most cases are congenital[1]. Developmental cysts are the most common congenital entity encountered in the retro rectal space[2-3] and include epidermoid cysts, dermoid cysts, and enteric cysts. There are two types of enteric cysts: tail gut cysts (so-called retro rectal cyst-hamartomas or mucin-secreting cysts) and cystic rectal duplication[4]. Neurenteric cysts have also been reported[5-7].

Developmental cysts are defined by their histologic components and retro rectal location, lying anterior to the sacrum and posterior to the rectum. They occur mostly in middle-aged women and in a 3:1 female-to-male ratio. The most important complications of these cysts are infection with a secondary fistula and malignant degeneration of enteric cysts[8-9].

The differential diagnosis includes a wide variety of conditions that occur in the retro rectal space: cystic sacrococcygealteratoma, anterior sacral meningocele, anal duct or gland cyst, necrotic rectalleiomyosarcoma, extraperitoneal adenomucinosis, cystic lymphangioma, pyogenic abscess, neurogenic cyst, and necrotic sacral chordoma.

In this article, the histopathology appearances, clinical presentation, complications, and imaging features of developmental cysts are presented, including the findings at plain radiography, computed tomography (CT), and magnetic resonance (MR) imaging. In addition, the differential diagnosis and treatment of developmental cysts in the retro rectal space are discussed

2. Case presentation

A 61 years female multiparous Indian woman presented in our surgical outpatient Department at Sri R.L. Jallappa Hospital Kolar, with chronic lower abdominal pelvic pain and swelling since 2 months, a retro rectal cyst was diagnosed keeping in mind Benign Cystic lesions like ovarian, recto rectal, hydatid and other degenerative cystic lesions**.** MRI revealed a large unilocular cystic lesion measuring 16x14x11 arising from extending from pelvis up to left hypochondrium causing a mass effect on the adjacent bowel loops displacing them to the right side of the abdomen and also compressing on the left mid ureter leading to moderate hydroureteronephrosis.

Fig no 1: MRI, showing the cystic lesion posterior and left lateral to the rectum

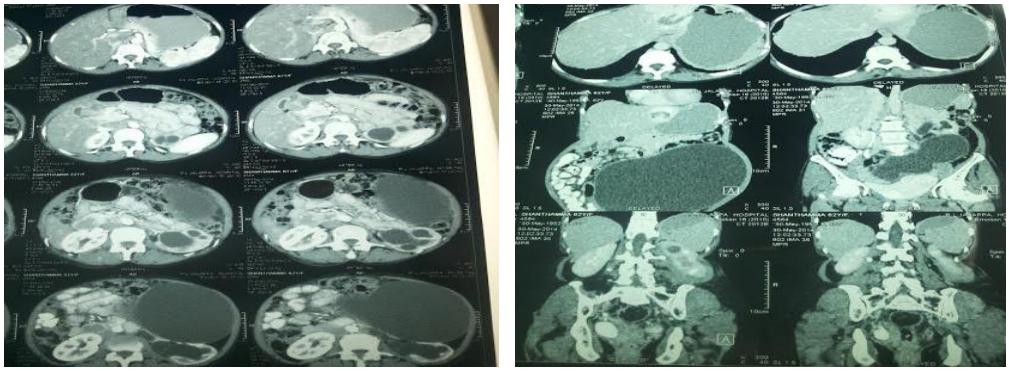
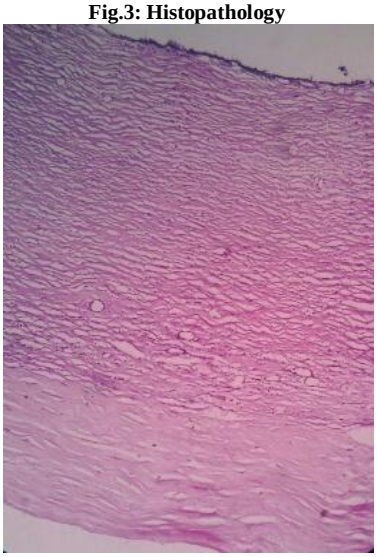


Fig 2: The lesion was resected through a laparotomy

After administration of preoperative antibiotic prophylaxis, a laparotomy was undertaken through an infra-umbilical midline incision. Subsequently, the pelvic peritoneum was opened, and the retro rectal space was carefully dissected to avoid injury of the pelvic nervous plexuses and the hypogastric nerves and the ureter. The retro rectal cystic lesion was removed intact, and on histologic examination was found to be a suppurated developmental degenerative cyst.

The patient made an uneventful recovery and was discharged on tenth postoperative day, post-operative follow up after three months she is doing fine without any complications. Degenerative cyst delivered through Abdomen and, on histologic examination, was found to be a benign developmental degenarative cystic lesion.

Fig.3: Histopathology



2.1 Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

2.2 .Ethical clearance

Ethical committee clearance for this study has been obtained from university

3. Discussion

Developmental cysts are the most common retro rectal cystic lesions in adults, occurring mostly in middle-aged women. They are classified as epidermoid cysts, dermoid cysts, enteric cysts (tailgut cysts or hamartomas and cystic rectal duplication), and neuroenteric cysts, according to their origin and histopathologic features[5-6]. The diagnosis of retro rectal cysts can be accomplished with greater than 90% accuracy with computed tomography (CT) and magnetic resonance imaging (MRI) if the rectum is contrasted[3-6]. Such lesions warrant surgical excision to establish the diagnosis and to avoid complications. MRI has been suggested to increase the accuracy of preoperative localization and to enable surgical planning[6]. Tran's rectal ultrasound, if available, can also be useful in defining the depth of infiltration in cases of rectal involvement[3].

The operative approach can be perineal, abdominal, or combined, depending on the position of the lesion and its anatomic relations with surrounding structures. Retro rectal cysts have been also managed by using a laparoscopic approach[7].

In our patient, the information provided by the MRI regarding the size and the anatomic relations of the cyst was considered sufficient, and therefore a pelvic. C.T was not performed. We opted to approach the lesion through a laparotomy, aiming to explore her pelvis thoroughly in view of her persistent pelvic pain and CA 125 was within normal limits.

4. Conclusion

Any pelvic cyst apart from other differential diagnosis, Degenerative cystic lesion should be considered.

Acknowledgement

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