



Case Report

A LATE ADOLESCENT GIRL WITH RECTAL DUPLICATION CYST IN BANGLADESH: CASE REPORT

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Abstract

Intestinal duplications, originally described in 1941, are congenital cystic lesions resembling and associated with part of the gastrointestinal tract. Rectal duplication is the rarest of the all duplications and adolescence presentation of rectal duplication cyst is quite unusual which is reported here. A 17 year female presented with right gluteal lump. She underwent surgery and was found to have a smooth cystic mass, which was later found to be a Rectal Duplication cyst in histopathology. High index of suspicion with other differentials can lead to early diagnosis and complete cure of the condition.

Key Words: Rectal Duplication Cyst.

Introduction

Intestinal duplications, originally described in 1941, are congenital cystic lesions resembling and associated with part of the gastrointestinal tract¹. Duplications most commonly involve the midgut (50%) or foregut (36%) least commonly hindgut (12%) and rectum being the rarest site (4-5%). Rectal duplication cyst, as a rare variety of congenital anomaly, the diagnosis is very often missed or remains undiagnosed. Duplication cyst of the rectum is difficult to diagnose, as the patient may remain asymptomatic and the most common presentation being the mass effect evident by obstruction, urinary symptoms, fistula formation and infection². It was aimed to report a late adolescent female with rectal duplication cyst that would be in the clinical consideration in a country like Bangladesh.

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Case Report

A 17 year old, unmarried female was admitted in a tertiary care hospital of Dhaka city with the complaints of lump in the right buttock since childhood and difficulty in sitting and defecation for the last four months. She received surgical treatment for the lump at the age of seven but couldn't provide documentations of the treatment. Following the operation the lump decreased but didn't disappear completely and again started to increase after a few years. Now for the last four months she has problems sitting and defecation, but there was no tenesmus or passage of blood per rectum. On inspection the left gluteal region was normal, but there was a lump on the inner aspect of the right side, oval in shape, 12x8 cm in size with no overlying skin change and cough impulse.

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A well healed scar mark of 13x1 cm over the lump was also noted. On Digital Rectal Examination (DRE) a non-tender bulging in the posterior wall of rectum, soft cystic in consistency, smooth surface was found. Based on history and clinical findings, a preliminary diagnosis of Dermoid Cyst in Right Gluteal region was made. Computed Tomography (CT) scan of pelvis showed large mixed density lesion having fat, fluid and calcification measuring about 15x13cm in right gluteal region maintaining perilesional fat plane and MRI of pelvis showing fairly large mixed intensity lesion is noted in right gluteal region with fatty component and signal void areas (suggest dental elements) measuring about 15 cm x 13 cm, both of which were suggestive of Dermoid Cyst of the right gluteal region. After performing all routine investigations and proper counseling, Excision of the cyst was done under general anesthesia through the previous scar with patient in Jack Knife position, a large cystic mass with smooth surface was found in right gluteal region. Specimen was sent for histopathology which revealed a unilocular cyst lined by colonic, gastric and respiratory epithelium resting on organized smooth muscle similar to muscularispropria, which was consistent with Rectal Duplication Cyst. No malignant cell was found. Post-operative period was uneventful with subsequent follow-up of that was done clinically for 6 weeks and the patient was found completely well.



Figure 1: Rectal Duplication Cyst after excision (Measuring 15x13 cm)

Discussion

Intestinal duplication, a rare congenital anomaly usually presents in infancy and can involve any part of the intestinal tract³. Rectal duplication cyst, the rarest of the variety first reported by Middeldorf in 1885, is lined by mucosa of the alimentary site not necessary that of the rectum². Several theories explain the etiology, but the most popular is that of Lewis et al. stating a diverticulum in the developing intestine of the embryo at 8-9 weeks age gives rise to

duplication cyst⁴. According to Tao et al. despite being diagnosed at early childhood the majority case remains asymptomatic and produces symptoms in late adulthood⁵. Tao et al. as well as Ladd et al. proposed that 95% of the rectal duplication cyst are cystic and non-communicating with rectum itself^{5,6} which is consistency with our finding. In 1940, Ladd and Gross proposed criteria for defining intestinal duplication⁶ namely the resemblance with intestinal mucosa, smooth muscle layer within the wall which is also in line with our findings. Monek et al. stated that DRE can show a palpable mass but abdominal mass is rarely palpable⁷ which is in favor of our clinical findings. According to Saglam et al. and Beattie et al. pelvic MRI makes it possible to identify the different layers of the cyst wall as mucosa and sub-mucosa being hyper intense, and muscularis being hypo intense⁸ which was not consistent with our case. Surgical excision is considered curative, as it provides relief of symptoms and prevents complications namely perianal sepsis, bleeding and malignant change. Katharine et al. have proposed different approaches namely trans-anal or trans-coccygeal depending on the site of the cyst, all having the same principle which is complete removal of the cyst. Most recently, Hartin et al. and Ben-Ishay and Person have described trans-anal endoscopic microsurgery (TEM) and laparoscopic intra-abdominal approaches⁹. These differ from our case as we had approached through the previous scar already present from the childhood procedure the patient underwent with a view to preventing formation of a new scar.

Conclusion

Rectal Duplication Cyst is a rare congenital cystic lesion and adolescence presentation could sometimes put the clinicians in a diagnostic dilemma. There is potential of malignant transformation, but on the other hand can be cured by complete excision, as inferred by the report high index of suspicion for diagnosis along with other differentials can lead to early and complete excision and cure of the condition.

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