

Review Article

An Epidermoid Cyst of the Cecum Taken as Right Adnexal Mass: About A Rare Case and Literature Review

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Abstract

An epidermoid cyst, also known as a sebaceous cyst, is a benign, encapsulated, subepidermal nodule filled with keratinous material. Although epidermoid cysts are most common on the face, neck and trunk, they can appear anywhere, even in internal organs such as the testicles, liver, spleen, and kidneys. Epidermoid cyst located in the caecum is a very rare condition, with only eleven cases documented in the literature. Our case represents the twelfth documented case of this uncommon localization. In this paper we tried to provide a comprehensive review of existing literature.

A 38-year-old patient with no previous pathological history was diagnosed an adnexal mass with an uncertain origin. A diagnostic and therapeutic laparoscopy was performed at first which shows: A normally sized and structured uterus, two healthy adnexa, free Douglas, no fluid effusion or carcinosis nodules. The cystic image is in fact a roughly rounded caecal mass. A laparotomy conversion and a right hemicolectomy were performed. Pathology made the final diagnosis of a benign epidermoid cyst.

This case highlights the challenges of diagnosis and management considerations associated with pelvic masses. Epidermoid caecal cyst remains an exceptional event. Differentiating an adnexal mass from a digestive mass is difficult because of common symptoms, the size, and imaging aspect. A definitive diagnosis of benignity can only be made after the pathology results have been obtained, that's why a large resection is necessary.

Keywords: Adnexal mass; Epidermoid cyst; Cecum; Magnetic Resonance Imaging (MRI)

Introduction

An epidermoid cyst, also known as a sebaceous cyst, is a benign, encapsulated, subepidermal nodule filled with keratinous material. Although epidermoid cysts are most common on the face, neck and trunk, they can appear anywhere, even in internal organs such as the testicles, liver, spleen, and kidneys.

Epidermoid cyst located in the caecum is a very rare condition; only 11 cases have been described in the literature.

The histogenesis of these cysts remains unclear, but two types have been described: acquired cysts and congenital cysts.

Observation

We report the case of Mrs. M.S, 38 years old, with no previous pathological history, no family neoplasia, mother of two children, 9 and 7 years old, who were born by vaginal delivery with regular and normal follow-up and uncomplicated postpartum period.

The patient presented to the obstetric gynecology department with a sensation of pelvic discomfort. On examination, her general condition was preserved, and she had not recently lost weight or suffered from asthenia. A tender abdomen, painless with free hernial

orifices, a normal gynecological examination except the perception of a right latero-uterine mass of ten centimeters at the vaginal examination combined with the abdominal palpation.

The patient underwent an ultrasound examination showing a right latero-uterine mass of about ten centimeters long axis, rounded, thin-walled, with a homogeneous, finely echogenic content, with an uncertain origin (Figure 1).

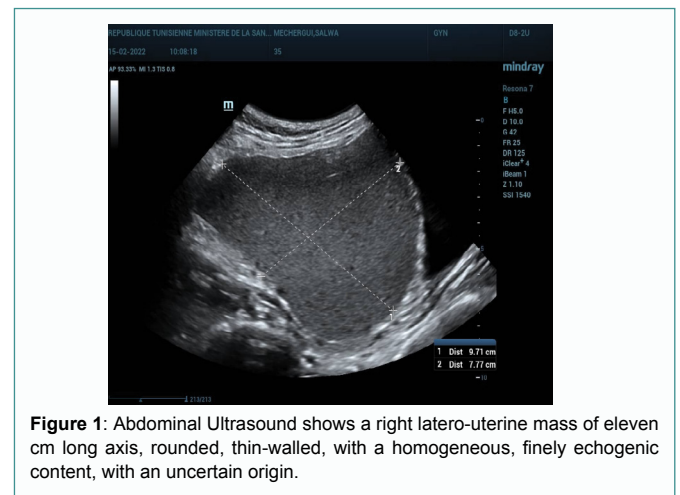


Figure 1: Abdominal Ultrasound shows a right latero-uterine mass of eleven cm long axis, rounded, thin-walled, with a homogeneous, finely echogenic content, with an uncertain origin.

A complementary MRI examination was requested which revealed a right adnexal mass of eleven cm with slightly hypointense signal intensity on T1-weighted and intermediate to high signal on T2-weighted (Figure 2).

A diagnostic and therapeutic laparoscopy was performed at first which shows: A normally sized and structured uterus, two healthy adnexa, free Douglas, no fluid effusion or carcinosis nodules (Figure 3 A). The cystic image is in fact a roughly rounded caecal mass. A

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laparotomy and a right hemicolectomy were performed (Figure 3 B-D).

Pathology made the final diagnosis of an epidermoid cyst. The macroscopic examination of the ileocectomy specimen showing the intramural cystic lesion filled with a yellow-to-gray pasty content (Figure 4).

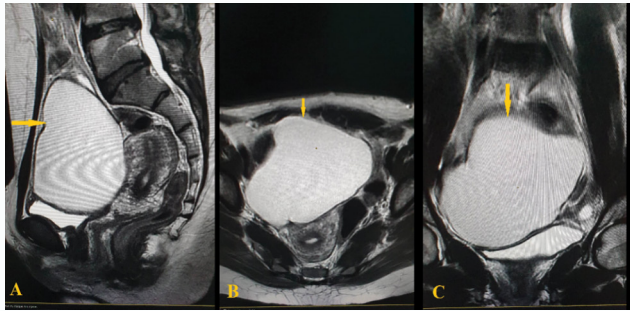


Figure 2: Magnetic Resonance Imaging (MRI) revealed a right adnexal mass of eleven cm with slightly hypointense signal intensity on T1-weighted and intermediate to high signal on T2-weighted (arrow). (A): Sagittal section (B): Transverse section (C): Frontal section.

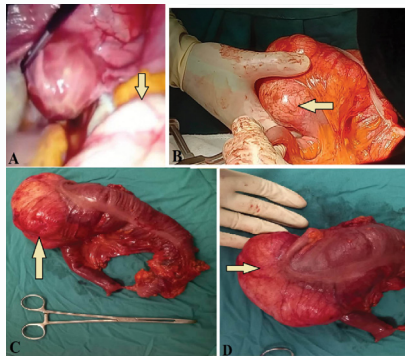


Figure 3: Intra-operative data of the cecal cyst (arrow): (A): First step exploratory laparoscopy : A normally sized and structured uterus, two healthy adnexa, free Douglas, no fluid effusion or carcinosis nodules. (B): laparoscopic conversion : the caecal mass. (C): Gross photograph of the surgical specimen of resected cecum The cyst is located on the cecum and contains friable gray keratin. (D): Gross photograph of the surgical specimen of resected cecum, terminal ileum and appendix.



Figure 4: Macroscopic examination: the ileocectomy specimen showing the intramural cystic lesion filled with a yellow-to-gray pasty content.

The microscopic examination (Figure 5) showed (a): cystic tumour located in the ileo-colonic muscularis. The colonic mucosa is seen here on the surface. (HE \times 4), (b): cystic wall lined by a regular keratinising squamous epithelium (HE \times 10), (c): cystic cavity containing keratin

strips, and the cyst reaches the subserosa (HE \times 10).

Outcome and Follow-Up: The postoperative course was uneventful and she was discharged on postoperative fifth day.

Discussion

Caecum is a very rare localization of an epidermoid cyst. Only eleven cases have been reported in the literature (Table 1).

A congenital epidermoid cyst occurs after inclusion of epidermis at time of embryonic closure of the neural groove or of epithelial fusion lines in the head, neck and anus. However acquired cysts may occur after abdominal surgery or trauma [1-8].

The diagnosis is generally made postoperatively, all the cases reported in this study had a different preoperatively diagnosis. Indeed due to the number of differential diagnoses and lack of the sensitivity of different imaging tools the final diagnosis is only made histologically.

In our case preoperative diagnosis was an adnexal mass, other possible differential diagnoses are mesenteric cysts, lymphatic cysts, appendiceal mucocoeles, duplication cysts, GIST.

A complete resection of the mass is needed because of the possibility of recurrence and malignant transformation. Ohsawa et al. reported that the incidence rate of malignant tumors arising from an epidermoid cyst is 0.011%-2.2% [9].

Laparoscopic resection is a safe surgical approach, if made by an experienced surgeon, offering the benefits of laparoscopic surgery such as better short-term outcomes including reduced blood loss, better recovery of bowel function, and shorter duration of hospitalization with the same surgical results. Tominaga et al. made the first SILS resected epidermoid cyst [6]. However, we should consider that it has some limitations such as large tumors, severe adhesions. In our case because of the high volume of the tumor, we decided to convert to laparotomy for a safer resection.

Conclusion

Epidermoid caecal cyst remains an exceptional event. Differentiating an adnexal mass from a digestive mass is difficult because of common symptoms, the huge size and imaging aspect. A definitive diagnosis of benignity can only be made after the pathology results have been obtained, that's why a large resection is necessary.

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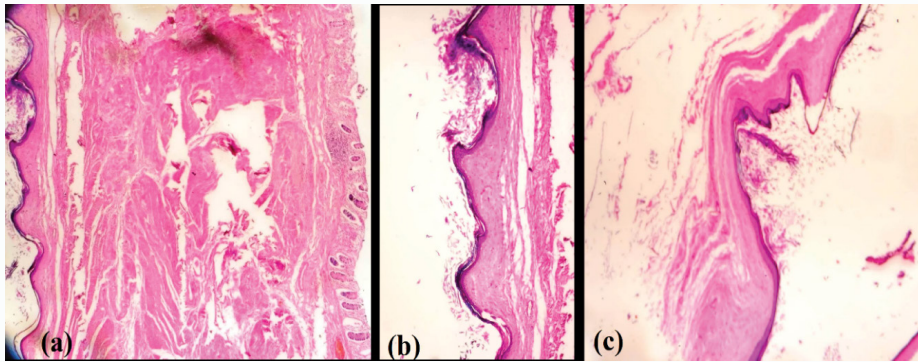


Figure 5: Microscopic examination: (a): Cystic tumour located in the ileo-colonic muscularis (HE × 4).the colonic mucosa is seen here on the surface. (b) : cystic wall lined by a regular keratinising squamous epithelium (HE × 10). (c): cystic cavity containing keratin strips, here the cyst reaches the subserosa (HE × 10).

Table 1: A summary of all the reported cases of epidermoid cyst of the cecum in the literature.

Case number	Age	Sex	History of operation	Initial diagnosis	Location of epidermoid cyst	Year reported
1. (1)	22	Female	Appendectomy	Right lower abdominal mass	Intramural	1961
2. (2)	27	Female	None	Chronic Appendicitis? Ovarian cyst torsion?	Subserosal	1965
3. (2)	71	Male	Appendectomy	Extrinsic or intramural cecal mass	Intramural	1969
4. (3)	8	Female	None	Right lower abdominal cyst	Subserosal	1999
5. (4)	67	Male	None	Duplication cyst	Subserosal	2002
6. (2)	75	Male	None	Appendix mucocele	Subserosal	2006
7. (5)	31	Female	Cesarian section	Adnexal mass	Subserosal	2012
8. (6)	54	Male	None	Mesenteric cyst	Subserosal	2013
9. (7)	63	Female	None	GIST	Intramural	2015
10. (6)	23	Male	Right inguinal hernia repair	Mesenteric cyst	Subserosal	2019
11. (6)	20	Female	None	Gastrointestinal tumor or duplication cyst	subserosal	2021
12.	38	Female	None	Adnexal mass	Subserosal	Our case

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