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Mucocèle of the Appendix: A Case Report

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Abstract | **Case Report**

The appendicular mucocele is a rare affection defined as a cystic dilatation of the lumen of the appendix caused by intraluminal accumulation of mucinous.the diagnosis is more often preoperative. The therapy may be a simple appendiccetomy when the mucocele is benign or a right hemicolectomy in the case of malignant mucocle. Here we report a 41-year-old woman admitted for mucocele of the appendix and treated by simple appendicectomy.

Keywords: Mucocele, appendix, case report.

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CASE REPORT

A 41-year-old woman was admitted to the hospital because of recurrent right lower abdominal pain. On physical examination, she presented with mild right lower abdominal tenderness without rigidity.

Her blood and urine tests were normal. Abdominal computed tomography (CT) revealed low-density lesions near the appendix.

A biopsy was performed and result was negative. Subsequent magnetic resonance imaging (MRI) revealed hyperintensity on T2-weighted imaging.

Consequently, mucocele of the appendix was diagnosed preoperatively. The patient was admitted to the surgical department for further investigation and Surgery.

We opted for an open procedure, and a lower midline incision was performed. During laparotomy, a giant appendiceal tumor was found, accompanied by a small quantity of serous peritoneal fluid that was gathered for cytological and bacteriological study. The tumor had an unmodified base of implantation in the cecum, and no lymphadenopathy or hepatic metastasis was found.

Appendectomy was performed after careful adhesion lysis, and the resected mass was sent to the pathological department for further study. The results of the bacteriological exam of the peritoneal fluid collected during surgery was negative, and the cytological exam of the same fluid showed that only a few inflammatory cells were present with absence of mucin or epithelial cells.

The pathological exam indicated that the mass was a low-grade appendiceal mucinous neoplasm (LAMN) ; and was associated with an R0 type excision margin.

The patient did well after surgery, was discharged 5 days after surgery, and is presently included in our follow-up program, which consists of alternating abdominal ultrasound and CT scans every 6 months for the next 2 years.

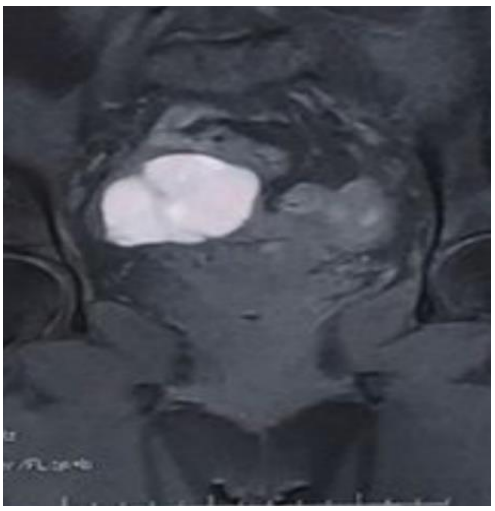

Figure 1: (MRI) revealed hyperintensity on T2-weighted imaging

Figure 2: Peroperative view

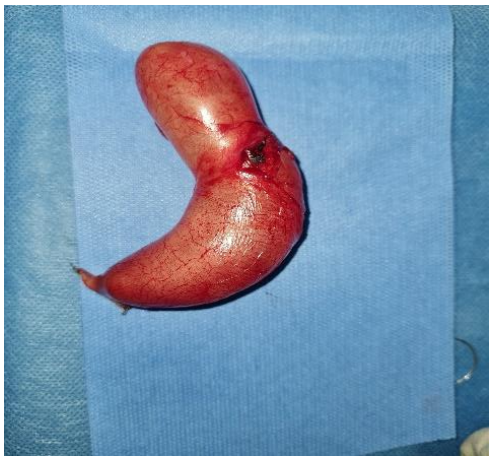

Figure 3: The appendix removed

REVIEW OF LITERATURE

Appendiceal mucocele was described for the first time by Rokitansky in 1842 [2-5]. Its incidence is 0.2 – 0.4% of all apendectomies performed, as it is observed predominantly in women with the ratio of 4/1 versus men and most frequently at the age over 50 [2-6].

It represents a progressive appendix dilation caused by intraluminal accumulation of mucoid substance and may be a malignant or a benign process [2-5].

There are 4 histologic types of appendiceal mucocele: retention cyst (18%), mucosal hyperplasia (20%), mucinous cystadenoma (52%), and mucinous cystadenocarcinoma (10%) [7-9].

The rupture of the appendix may lead to the dissemination of the epithelium that produces mucins in the abdominal cavity, causing mucinous ascites or pseudomyxoma peritonei [2, 7, 8, 10].

Patients with appendiceal tumors have unspecific clinical signs, lesions are asymptomatic in 25% of patients and discovered accidentally during radiologic examinations or at surgery [2, 4, 11, 12].

The most common presentation is right lower quadrant pain, similar to an acute appendicitis; a palpable mass can be found in 50% of cases, the rare complications include intestinal obstruction, or intestinal bleeding. Pseudomyxoma is the worst complication, characterized by peritoneal dissemination caused by spontaneous or iatrogenic perforation of the appendix [2, 9, 11, 12].

Preoperative diagnosis of appendicular mucocele is very important for the selection of an adequate surgical method to prevent peritoneal dissemination [11].

Ultrasonography can be used to differentiate between mucocele and acute appendicitis Computer Tomography is the most accurate method of diagnostics. It can be used to dis-cover the signs specific to mucocele with high accuracy: appendix lumen more than 1.3 cm, its cystic dilatation, and wall calcification. colonoscopy shows a mucous from the orifice, magnetic resonance imaging (MRI) is more sensitive in identifying peritoneal disease [2, 4, 11-13].

However, histological analysis is indispensable to achieve specific surgical management [14].

Appendicular mucocele requires surgery for two reasons its potential malignancy and possibility of rupture in 5 to 15% of cases with the risk of dissemination or peritoneal pseudomyxoma [14].

The surgical approach by laparotomy is recommanded , but laparoscopic surgery may be chosen for simple and unruptured forms [14-16].

Benign forms are best treated by conventional appendectomy (Mac Burney or laparoscopy) avoiding any cellular dissemination to prevent peritonitis [14].

Right hemi-colectomy is recommended when malignant mucoceleis suspected by the presence of a positive lymph nodes, perforated mucocele, enlarged mesenteric lymph node or a positive cytology

In case of contamination of the peritoneal cavity, additional treatment with intraperitoneal chemotherapy may be indicated [15].

Laparoscopy becomes important in the last two decades, however open surgery is recommanded in large and giant tumors due to the risk of iatrogenic rupture and mucin spread in the peritoneal cavity [13, 15, 16].

The differential diagnosis of an appendiceal mucocele are ovarian cysts, omental cysts, abdominal abscess, renal cysts or pancreatic pseudocysts [17].

CONCLUSION

The surgery of the mucocele requires a considerable importance, the surgeon must be very careful to prevent the pseudomyxoma peritonei which can have serious consequences of the patient.

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