

Malignant obstruction of the rectal stump as an etiological agent of mucocele

Obstrucción maligna de muñón rectal como agente etiológico de mucocele

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Summary

Mucoceles are frequently observed in the paranasal sinuses, however, rectal mucoceles are a rare complication occurring after surgical procedures, having a non-specific presentation. Its relationship with the surgical history should be known in order to suspect, diagnose and treat this pathology in a timely manner, in order to avoid complications that cause greater morbidity, such as abscesses and fistulas. We present a case report of a rectal mucocele on a residual stump after a diverting colostomy in the context of a rectal neoplasm.

Resumen

Los mucoceles son hallazgos observados frecuentemente en los senos paranasales; sin embargo, se pueden localizar en el recto, lo cual es una complicación infrecuente, que se presenta después de procedimientos quirúrgicos; su presentación es insidiosa y no específica. Se debe conocer su relación con los antecedentes quirúrgicos para sospechar, diagnosticar y tratar esta patología oportunamente, con el fin de evitar complicaciones que causan mayor morbilidad, como abscesos y fístulas. A continuación, se presenta el caso de un mucocele rectal del muñón residual tras una colostomía derivativa en el contexto de una neoplasia rectal.

Introduction

The mucocele, from the histological point of view, consists of a cavity with mucinous content surrounded by epithelium or granulation tissue (1). It has been described in several locations, but the most frequent are the paranasal sinuses, the cecal appendix and the gallbladder (2). In a search in PubMed, in the last 20 years, ten case reports and two case series describing rectal mucoceles were found, one with eight cases and the other with seven cases (3-6). It is, therefore, a rare entity and in all documented cases it was secondary to surgical procedures.

Case summary

A 43-year-old male patient consulted the emergency department for high intensity abdominal and pelvic pain associated with abdominal distension and decreased colostomy habit. She had a history of locally advanced mucinous adenocarcinoma of the middle and lower thirds of the rectum, undergoing neoadjuvant treatment with curative intent. Six months before the consultation, a laparoscopic sigmoid colon bypass colostomy was performed secondary to intestinal obstructive process.

During the evaluation, the patient had normal vital signs: heart rate of 75 beats per minute, blood pressure of 118/78 mm Hg and temperature of 36.5 ºC. The abdomen was distended and showed signs of obstructive bowel obstruction. The abdomen was distended and showed diffuse pain on palpation, predominantly in the hypogastrium.

Due to clinical suspicion of intestinal obstruction, an abdominal X-ray was performed as an initial study, which showed no alterations (Figure 1). To characterize the etiology of the patient's symptoms, a CT scan of the abdomen with oral and intravenous contrast medium was performed, in which dilatation of the lumen of the rectum and sigmoid colon was observed, with homogeneous content and low endoluminal density, with an average density of 2 Hounsfield units. Additionally, there was concentric and symmetric thickening of the walls, with stratification of its layers and an area of stenosis in the lower rectum, which corresponded to the area of the known rectal tumor. The CT report proposed as a diagnosis mucocele of the rectal and sigmoid stump secondary to rectal stenosis, with changes in the intestinal wall that could indicate ischemia (Figures 2 and 3).

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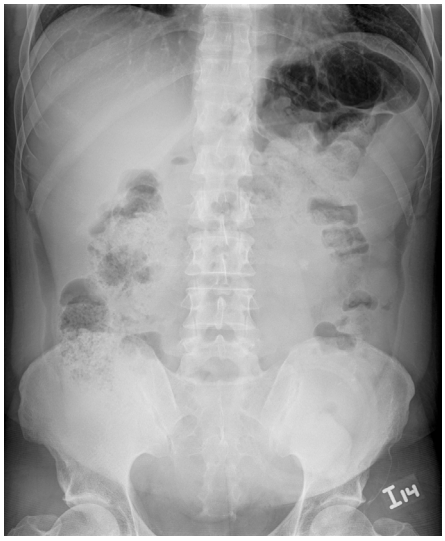


Figure 1. Simple abdominal X-ray in anteroposterior projection in supine position, without relevant findings.



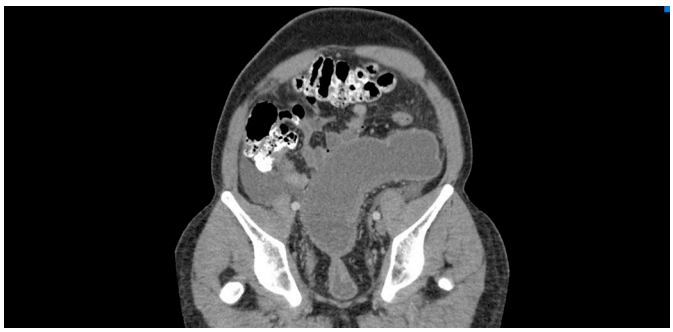


Figure 2. Orthogonal multiplanar reconstructions of abdomen and pelvis scan with intravenous and oral contrast medium in venous phase. a) Sagittal reconstruction: Dilatation of the sigmoid colon loop, middle and upper rectum, occupied by low density material, homogeneous, with concentric thickening of the walls and stenosis in the lower rectum associated with increased density of perirectal fat. b) Orthogonal reconstruction in coronal plane: Proximal stump and distal stenosis area in the lower rectum, concentric thickening of the intestinal walls and distension due to the occupation of the intestinal lumen by low density content are identified.



Figure 3. Orthogonal reconstruction in the transverse axis of the dilated loop of sigmoid and rectum, documenting mechanical suture at the proximal end and the stenosis described in the lower rectum at the distal end.

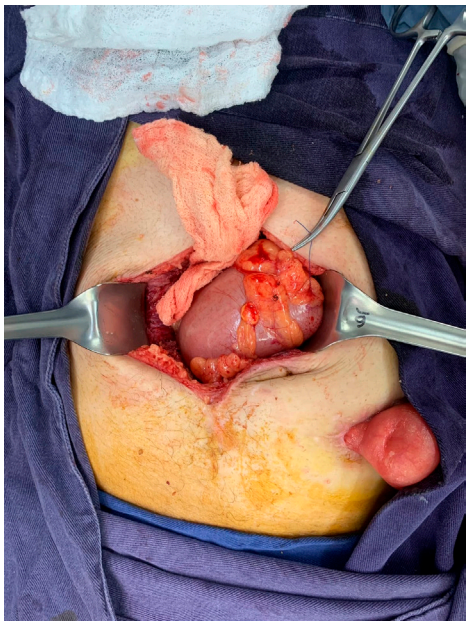


Figure 4. Infraumbilical median laparotomy. Proximal sigmoid colon and dilated upper rectum with mucoid contents inside, without signs of ischemia or perforation.

The patient was taken to infraumbilical laparotomy, in which redundant, distended sigmoid stump was found, vital, without polishing of the serosa, bulging, with mucoid content and without signs of perforation. Tumor progression does not advance. Made a controlled drainage of the contents that yielded 600 cm3 of mucus. Yeah managed to exteriorize a suprapubic mucosal fistula from the sigmoid colon distal, to bypass the portion of the enteric tract obstructed by the rectal neoplasia (figure 4). The patient progressed favorably postoperatively, he was discharged on the fourth day and his therapy was continued neoadjuvant.

Discussion

Rectal mucoceles are rare and have been described in the literature in the post-surgical clinical context (after Hartmann's procedure, subtotal colectomy and hemorrhoidectomies) (3, 4). The normal mucosa of the residual rectal stump after colorectal surgery usually produces small amounts of mucin, which under physiological conditions is excreted through the anus. Among the factors that may contribute

to the accumulation of mucus in the lumen of the rectal stump after surgery are: luminal obstruction, stenosis, increased anal tone, as well as inflammation, scarring and epithelialization of the intestinal wall. These conditions prevent the adequate elimination of mucus, which generates a loop with both ends occluded, promoting the formation of a mucocele, which will continue to increase in size until it becomes symptomatic (2, 5).

Mucoceles have been documented in segments of dysfunctional colon after derivative surgery due to stenosis and with retraction of the colonic stump (4), similar to the case of the patient described here.

The symptomatology of rectal mucoceles includes rectal tenesmus, abdominal pain and obstructive ileus, symptoms that may overlap with those of the primary tumor when it presents recurrence or complication (3). On physical examination, a pelvic or pararectal mass may be palpated (6).

The findings that are usually seen in scanography are of a lesion with well-delimited borders, of low density, homogeneous, thin-walled and that may be dependent on the wall of the loop. Magnetic resonance imaging (MRI) shows the usual behavior of a cyst related to the rectum or rectal wall, with high signal in T2-weighted sequences and no solid component (3, 6) or, as in the case presented, occupation and distension of the intestinal lumen by homogeneous material of liquid signal intensity can be seen.

The images also allow focusing and ruling out other differential diagnoses, such as benign neoplasms (lipoma, leiomyoma, gastrointestinal stromal tumor), malignant tumors (mesenchymal, neural, neuroendocrine, carcinoid, lymphomas), endometriotic deposits, retrorectal cystic lesions of development (rectal duplication cysts, epidermoid and dermoid cysts) and diverticula (3, 6).

A possible complication of rectal mucocele is the formation of abscesses and fistulas secondary to mucus retention, fecal contamination and bacterial overgrowth (6). There are different treatments, such as excision of the cystic lesion, resection of the residual rectum and drainage; the latter is the most commonly used, but has the disadvantage of being potentially recurrent (3).

Conclusion

Rectal mucoceles are an uncommon but relevant complication that should be considered in patients with a history of surgical procedures in this organ and recurrent pain with multiple visits to health care services. Diagnostic imaging, and especially scanography, plays a key role in diagnosis, allowing detection of possible complications and treatment planning.

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