Rectovesical fistula; a rare complication of appendicitis

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ABSTRACT
Rectovesical fistula is a rare complication of undiagnosed acute appendicitis. This fistula often presents recurrent symptomatic Urinary Tract Infection (UTI). A case of Rectovesical fistula in a 41-year-old male diabetic patient is described. A perforated appendicitis caused the connection between the base of the bladder and the rectum. There was no appendicovesical fistula connecting with the caecum. In this case a primary resection of the involved rectum was done, the fistula tract excised and simple closure of the bladder and appendectomy was performed.

Key words: rectovesical fistula, appendicitis, single stage resection

INTRODUCTION
The Rectovesical fistula is a serious surgical problem as it seldom closes spontaneously and may lead to death.1 Fistula may be either congenital or acquired (e.g. inflammatory like appendicitis, surgical and neoplastic). The most of patients primarily have urinary tract complaints. Signs include abnormal urinalysis findings, malodorous urine and debris in the urine, hematuria and UTI. These patients usually treated late because the colovesical fistula is accompanied by the unusual symptoms like diarrhea, frequency, dysuria and urgency.2

The diagnosis of Rectovesical Fistula (RVF) is difficult and usually delayed. Barium enema and colonoscopic examinations, magnetic resonance imaging, ultrasonography, cystography, IVP have minimal role in RVF diagnosis. Computed tomography (CT) detects air within the bladder earlier and without equivocation when compared with other imaging techniques. It can also determine the extent of pericolonic inflammation. Therefore, CT plays an important role in preoperative surgical planning and post operative follow up.3

We report the case of a 41 years old man presenting hematuria, pneumaturia initially investigated with cystoscopy and finally attributed after an extensive investigation to rectovesical fistula related to unusual symptomatic appendicitis.

CASE REPORT
A 41-year-old male diabetic patient presented with persistent dysuria, frequency with leukocyturia and hematuria. He was investigated with cystoscopy by an urologist. The result of biopsy through cystoscopy was cystitis cystic glandularis with severe acute and chronic cystitis. He had lower abdominal pain, fever and diarrhea history in 7 months ago that he didn’t perform any work up. While this patient was referred in our service he had no signs in physical exam of abdomen in spite of the presence of pneumaturia. His chief complaint was: my urine is dark and malodorous that looks like fecal material, sometimes it has air bubble. His urine culture was positive and the predominant organism was E-coli. The result of CBC was normal except mild leukocytosis. The blood Urea Nitrogen, creatinine and electrolytes were normal. An RVF was confirmed by CT, which showed gas in the bladder and thickening of the bladder wall. Fat plain

Figure 1, IVP, diagnostic method of RVF, in the reported case.
between the rectum and urinary bladder is obliterated. There were a few tiny air bubbles within the fistulous tract which is also almost 2 cm in length. No diverticulitis or additional mass was seen. Findings also were confirmed with IVP (Fig. 1). Tract of fistula had been shown in this IVP. Finally laparotomy with single stage resection was done. Retrograde appendectomy, resection of involved rectum and fistula tract was performed. Primary Anastomosis was done then defect of bladder wall was repaired too. Surgical pathology report was no evidence of malignancy and the properties of appendicitis and chronic cystitis was described. This patient was followed up two weeks, one month, six month and one year later. He did not have any complaint and his physical exam was normal.

DISCUSSION

Fistula formation often occurs between the two adherent structures or they may communicate via an abscess cavity. Inflammatory, neoplastic or degenerative changes in the involved viscus can cause the fistula tract. In the literature pneumaturia was reported in some patients. Many patients’ symptoms were mild, and it was common for the patient to wait for several months before seeking medical care. Although the principle cause of RVF is intestinal origin, most of patients complain from urologic symptoms. As the other forms of internal fistulous, common gastrointestinal problems range from mild abdominal cramps to severe abdominal pain and diarrhea.

Several studies were reported different diagnostic methods to investigate anatomical location of the suspected RVF. Cystoscopy will determine the fistula in 35-40% of cases. Intravenous urography will depict the fistula in 8%. Abdominal and pelvic CT scan is the most accurate test to detect a colovesical fistula, consequently CT scanning should be considered as part of the initial evaluation of patients with suspected colovesical fistulae in order to demonstrate the extent and degree of pericolonic inflammation.

CT scanning can show small amounts of air or contrast material in the bladder, localized thickening of the bladder wall, or an extra luminal gas-containing mass adjacent to the bladder.

The management of colovesical fistula is challenge to surgeons. Single stage, multi stage, open and laparoscopic repair have been well documented. No evidence has proved the multistage repair superior to the single stage resection. The recommended treatment of colovesical fistula is Primary resection of the colon, simple closure of the bladder and the excision of fistula tract.

In summary, because the diagnosis of RVF is difficult, surgical treatment may be delayed. In view of several studies, CT scan can be considered as the first diagnostic investigations. If further information is needed other imaging can be used. There is different technique to manage RVF. At last, multistage repair has no prefer to single stage resection. In our experience pneumaturia, dysuria, frequency and diarrhea with abdominal pain were his symptoms. His sign was abdominal tenderness and fever. RVF was confirmed with IVP. It is concluded that IVP should be more highlighted by the surgeons as a diagnostic method of colovesical fistula. Our treatment was laparotomy with single stage resection of the involved rectum, primary repair of it, repair of the defect of the bladder, appendectomy and resection of the fistula tract.

REFERENCES


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