Renocolic fistula secondary to colon adenocarcinoma

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ABSTRACT

Introduction: The development of renocolic fistula is rare. A little over 100 cases have been reported in the literature. Symptomatology is insidious. Diagnosis is made by means of radiologic studies and management is generally surgical.

Objective: The objective of this article is to present a rare case of renocolic fistula secondary to colon adenocarcinoma.

Conclusions: Renocolic fistula is rare. However it is important to be aware of its possible symptoms so that there can be diagnostic suspicion resulting in adequate diagnosis and treatment. Prognosis is dependent on the disease causing the fistula.

Key words: renocolic fistula, adenocarcinoma, colon.

RESUMEN

Introducción: El desarrollo de una fístula renocólica es un suceso infrecuente. Se han reportado un poco más de 100 casos en la bibliografía. Los síntomas son inespecíficos e insidiosos. El diagnóstico se establece con estudios radiológicos y el tratamiento es casi siempre quirúrgico.

Objetivo: Presentar un caso de fístula renocólica secundaria a un adenocarcinoma de colon, ya que su presentación es muy rara.

Conclusiones: La fístula renocólica es una entidad que se presenta sólo de forma ocasional; sin embargo, es importante conocer con qué cuadro clínico aparece, de tal manera que pueda tenerse una sospecha diagnóstica y se realice un abordaje diagnóstico y terapéutico adecuado. El pronóstico depende de la enfermedad que dio origen a la fístula.

Palabras clave: fístula renocólica, adenocarcinoma, colon, México.
INTRODUCTION

The development of renocolic fistula is an uncommon event. A little more than 100 cases have been reported in the literature. The ascending and descending colon is the most affected site and the majority of reports refer to fistula on the left side. The lesion extends to the cutaneous level in 10% of cases. Diagnosis is made with radiological studies and management is generally surgical.

CLINICAL CASE

The patient is a 50-year-old man with only a history of smoking (5 cigarettes daily for 25 years). His illness began 9 months prior to hospital admittance characterized by asthenia, adynamia and hyporexia. Two months later he presented with bouts of humid non-cyanosing cough with yellowish expectoration, thoracic pain and fever. Patient was admitted to a public hospital where he was treated for pneumonia. During hospital stay he developed a mass in the right lumbar area that gradually grew in size until reaching 12 x 10 cm under the costal ridge in reference to the midclavicular and anterior axillary line. It had poorly-defined borders, was painful upon palpation, and had a yellow exudate. Mass was fed with fistulous opening in right lumbar region and posterior spontaneous closure. He was managed as an out-patient with oral medical treatment. Patient’s general state gradually worsened and fistulous opening recurred. Five months later patient began to present with 10-12 liquid evacuations in 24 hours. They were non-fetid and did not contain mucus or blood. Patient lost a total of 25 kg from time of disease onset. A week prior to hospital admittance his symptoms worsened presenting with nausea and vomiting and urinary storage symptomatology. He sought medical attention at the emergency room of the Hospital General de México where physical examination showed him to be conscious, dehydrated, cachexic, with a large and fallen abdomen and increase in frequency of peristaltic noise. An approximately 10 x 10 cm hard, fixed, non-painful mass was palpated in right flank and hypochondrium under the costal ridge. There were no changes in skin color. Laboratory work-up reported leukocytes 6900, hemoglobin 6.8, hematocrit 22, platelets 196,000, glucose 116, uric nitrogen 7.3, creatinine 1.02, urea 32, Na 135, K 1.67, Cl 109, Ca 6.6, proteins 4.72, albumin 1.39, TB 1.1, TGO 29, GPT 26, ALP 404, LDH 533, PT 20 seconds, PTT 35 seconds, Anti HIV Ac. 1/2 negative, urinalysis normal. Helical abdominal tomography showed obvious air-fluid level in upper renal cavities in oral contrast phase (Image 1). Fistulous opening was confirmed from colon to kidney in endovenous contrast phase (Image 2). Colonoscopy revealed the presence of irregular, exophytic and neoplastic tissue with multiple necrotic areas in the junction of the ascending colon with the transverse colon. Histopathological study of the biopsy reported moderately differentiated colon adenocarcinoma. During hospital stay patient’s general state worsened and he died before receiving definitive treatment.

Autopsy confirmed clinical and radiological diagnosis showing fistulous tract between colon and right kidney (Images 3 and 4). Microscopic revision of the specimen revealed adenocarcinoma originating in the epithelium of the colon mucosa with invasion of the renal parenchyma.

DISCUSSION

Fistulous communication between the urinary apparatus and gastrointestinal tract may present in different anatomical sites of the urinary apparatus from the kidney to the urethra, including the renal pelvis, ureter and bladder. In 1960 Hobson reported the first case of fistula from the urinary apparatus to the intestinal tract secondary to tuberculosis. Fistulas can be classified as traumatic or spontaneous. Those of traumatic origin are invariably iatrogenic, secondary to open or percutaneous procedures. Spontaneous fistulas almost always present as a consequence of infectious inflammatory process or secondary to neoplasia. The most frequent clinicopathological entities causing this type of fistula are genitourinary tuberculosis and pyonephrosis with calculi. Gastrointestinal tract origin is less frequent than in the urinary apparatus and there are reports involving the small intestine, the ascending, transverse and descending colon and rectosigmoid colon. Neoplastic disease and diverticular colon disease give rise to this type of fistula. In 1974 Brust reported a case arising from colon neoplasia, just like the present case. The physiopathological sequence of fistula formation is due to the development of acute inflammatory process with abscess formation that spontaneously drains into the neighbor organ that is usually infiltrated by the inflammatory process. The natural anatomic relation between the urinary tract and the colon favors more frequent presentation of fistulous tract in the ascending and descending colon when communication with the urinary tract involves upper urinary pathways. Frequent left side renocolic fistula presentation is logically explained by the natural anatomical distribution of primary colon cancer foci on the left side. Renocolic fistula in the present case was in the ascending colon. Diverticular disease is the most common cause of the pathology involving the sigmoid...
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Clinical presentation of renocolic fistula is variable and includes general symptoms such as progressive weight loss, asthenia, adynamia, hyporexia and dehydration. Gastrointestinal symptoms that can present are persistent diarrhea, pain and distension, increase in frequency of evacuations, rectal tenesmus and on rare occasions, acute abdomen secondary to intestinal obstruction. Urinary symptomatology can be pneumaturia, fecaluria and in 10% of cases present with spontaneous opening and closing of fistula to the skin. In 1995 Vidal presented a series in which the presence of neoplastic disease hindered fistula diagnosis. The case described here presented with a mass in the right lumbar region and signs of pneumonia and chronic diarrhea that led to the suspicion of the patient being an HIV carrier. This suspicion was ruled out with appropriate laboratory tests. Diagnosis is made through imaging studies and barium enema and retrograde pyelography are useful because contrast medium can be observed passing between the cavities and colon, though sometimes this is not able to be seen. Computed tomography is a study that provides very good definition. Just as reported by Blatstein and Parvey, in this case the fistula was able to be identified, as was the passing of contrast medium from the colon to renal cavities and air-fluid levels as well as the perinephretic inflammation that extended to the colon. When the lesion extends to the skin fistulography is an excellent tool. Management of cases caused...
by instrumentation is generally conservative. However, all other cases are managed surgically and nephrectomy and intestinal resection with primary anastomosis should be carried out. Due to the very poor condition of the patient described in this case, the abovementioned surgery was not able to be performed. Tuberculosis patients should be managed with antituberculosis treatment. Laparoscopic management has been reported (nephrectomy and fistula closure). Prognosis depends on etiology, degree of kidney deterioration and general condition of the patient.

**CONCLUSIONS**

Renocolic fistula is very rare. It is important to recognize its possible symptoms so that diagnosis is suspected and the proper diagnostic and therapeutic approaches are carried out. Prognosis is dependent on the underlying cause of the fistula.

**BIBLIOGRAFÍA**