CASE REPORT

# Ischiorectal abscess as an uncommon presentation of rectal adenocarcinoma: A case report and review of literature

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**Abstract**

Perianal presentations of rectal adenocarcinoma are uncommon. Perianal/ischiorectal conditions which harbour malignancy can occur due to infiltration by rectosigmoid growths, invasion of or implantation in previous fistula tracts, or de-novo. Rarely, an ischiorectal abscess or fistula alone can be the sole presenting symptom of locally advanced rectosigmoid adenocarcinoma. Such an abscess may be inadequately treated and will then fail to heal. We report a patient whose sole symptom was an ischiorectal abscess which had failed to heal. On examination, we diagnosed a rectal growth. Biopsies from the lesion and abscess/fistula tracts showed rectal adenocarcinoma. Computerized tomography confirmed the diagnosis of locally advanced rectal adenocarcinoma with ischiorectal fossa infiltration. A high index of suspicion, thorough examination while draining such abscess, and biopsy of such abscesses or tracts will help in averting mishaps, appropriate diagnosis of cause and prompt planning.

**Keywords**: Fistula in ano, Malignant Fistula, Rectal Adenocarcinoma

## Introduction

Early diagnosis and treatment of colorectal cancer is essential to reduce morbidity and mortality associated with this condition. Locally advanced lesions of rectal carcinoma (tumour stage T4b) are also labelled as "primary rectal cancer beyond total mesorectal excision planes." These lesions are associated with complex clinical presentations, high failure rates and significant mortality. Despite this, a well-planned and high-quality treatment can result in durable oncologic outcomes and even cure for many patients but only if diagnosed early.

Rectal carcinoma may present as a fistula or acute perianal sepsis. Sometimes it is challenging to determine whether the tumour is a complication of a long-standing perianal fistula or the carcinoma itself has fistulated [1]. We report this rare case wherein the locally advanced rectal malignancy had solely presented as an ischiorectal abscess and non-healing fistula.

## Case Report

A 55 year old male patient, without any known comorbidities, had presented with a history of pain in the perianal region and occasionally passing blood in stools. He reported that a month back, he had a swelling in the right perianal region and had undergone an operation for the same. Now, the wound had not healed properly and was discharging pus and occasionally blood. Since operative details were not available, we suspected that a right ischiorectal abscess was drained at that time. He also complained of intermittent fever. Systemic examination was normal. On local exa-

mination, we found a partially resolved abscess in the right perianal region with multiple openings at 5 and 7 o'clock positions discharging pus (Figure 1). The surrounding area was tender, inflamed and indurated. The digital rectal exam was painful. Examination under anaesthesia confirmed above findings and also revealed an irregular friable ulcero-proliferative rectal mass on the postero-lateral wall causing luminal narrowing proximally. The lesion was 3-4 centimetres proximal to the anal verge. We were unable to palpate the upper limit of the mass. We could not negotiate the

**Figure 1: Local examination of the patient:** The right ischiorectal abscess with external openings discharging pus

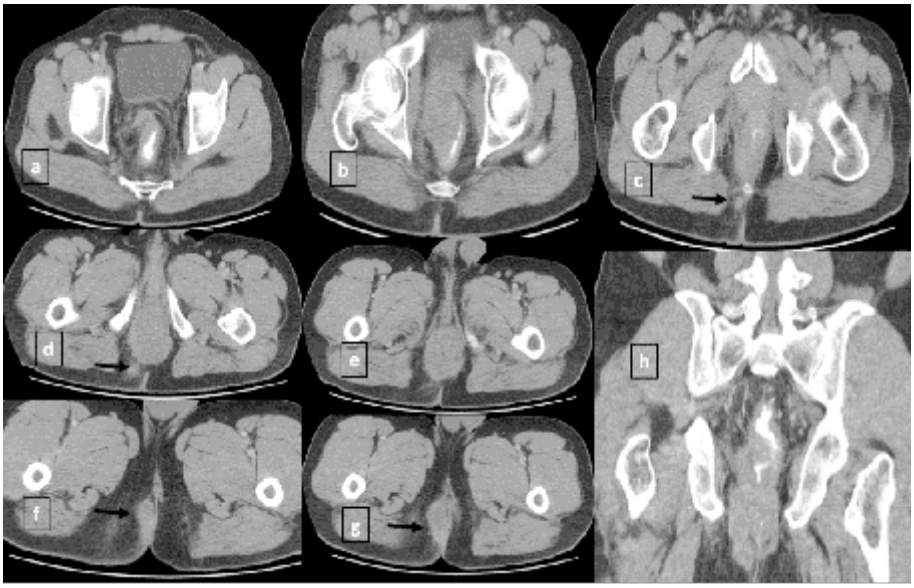


**Figure 2: Tomographic images showing the extent of lesion:** Contrast-enhanced tomography Images a, to h show the long segment circumferential lesion in the lower rectum. Black arrows in the images c, f, and g, show the extension into ischiorectal space and perianal space with the collection

colonoscope due to significant luminal narrowing. We drained the collection through the existing tracts.

Computerized tomography revealed a diffuse, polypoidal, long segment lesion of about 10 centimetres involving the distal rectum and anal canal with luminal narrowing (Figure 2). Fat planes were not preserved, with extension into right perianal space. There was a collection within the lesion which was clinically correlating with the abscess. Multiple pararectal lymph nodes were present. The mass was abutting the prostate and seminal vesicles. Histopathology of the samples from the lesion and fistula tracts revealed moderately differentiated rectal adenocarcinoma. After controlling the local sepsis, we have referred the patient to a tertiary cancer care centre for neoadjuvant chemoradiation.

**Discussion**

Ischiorectal abscesses are usually secondary to a cryptoglandular abscess. Rarely, a locally advanced rectal adenocarcinoma may infiltrate the ischiorectal space and when infected can present as an abscess. Malignancy found in ischiorectal space/ perianal abscess can arise from [2–11]:

1. Metastasis from proximal colonic/ rectal cancer: Implantation/ "cancer infection": Seedlings from proximal adenocarcinoma will involve pre-existing chronic fistula in ano and scars or raw area after anal surgery.
2. Metastasis from small colorectal cancer via lymphovascular metastasis
3. Local invasion into a pre-existing fistula.
4. Rectal cancer extending into ischiorectal and perianal tissues.
5. De-novo anal carcinoma originating from the tract itself.
6. Squamous cell carcinoma associated with hidradenitis suppurativa.

In our case, it is evident that the perianal lesion was due to extension of the locally advanced cancer of the distal rectum. We have found that most of the reported cases of malignant fistula tract were metastasis from a proximal colorectal tumour [1, 6–15]. These metastatic lesions in a fistula tract can be synchronous or metachronous. Only a few authors have reported the concurrent presence of a perianal abscess as in our case [5, 7, 15]. For differentiating the above lesions from a primary cancer arising from an anal fistula, previous studies have mentioned the following diagnostic criteria [2–6]:

1. Recurring inflammation of the fistula for at least ten years,
2. Increasing pain and induration at the fistula,
3. Mucus secretion,
4. No primary cancer in the rectum and anus,
5. The internal opening should be in the anal canal or an anal crypt and devoid of malignancy.

In scenarios, where rectal malignancy has extended into perianal tissues, the diagnosis is usually late and the prognosis is poor [5]. Nonspecific or overlapping symptoms may not arouse suspicion. Such patients usually receive a drainage procedure for the apparent abscess without resolution of symptoms. An adequate examination of the rectum without anaesthesia is impossible due to the pain in such patients delaying the diagnosis [5]. As a rule, all patients undergoing treatment for perianal conditions should undergo a thorough examination and appropriate endoscopic procedure/ imaging as and when indicated. One needs to sample the

cavity wall and tract for histopathological examination [5]. Colonoscopy will rule out any proximal colorectal tumour as a cause in such cases.

Colon cancer and cancer arising from an anal fistula can present synchronously. Histopathological examination and immunohistochemistry will help to differentiate between the primary anal cancer and the metastases/ infiltration [9, 12,14-16]. Anal glands and thus the anal carcinoma is strongly immunoreactive with antibodies to Cytokeratin (CK)-7 but not to CK-20. On the other hand, a colorectal carcinoma involving an anal fistula is CK-7 negative and CK-20 positive [16]. In our case, it was clearly evident that the fistula was due to rectal malignancy.

Cases similar to our case and those metastatic from proximal cancer will require control of local sepsis and neoadjuvant therapy to downstage the disease. For an effective cure, the local disease (metastatic or infiltrative) also needs appropriate management during definitive intervention for proximal disease. Due to the rarity of such cases, there are no definite guidelines for treatment options. Each patient will require a tailored treatment protocol [10].

**Conclusion**

We recommend a thorough operative exploration of all abscesses and fistulas, not only to control sepsis, to prevent the recurrence, or to rule out Crohn's disease, but also to rule out a rare condition i.e., a rectal carcinoma presenting as a perirectal abscess or fistula. Awareness of such condition can avert a mishap and mismanagement.

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