Abstract. – We report a case of multiple fistulae in ano [8 external openings] in a 45-yr-old man, who had a history of episodes of pain and pus discharge from openings around the anus since 4 years.

Biopsy from the tract of one of the fistula confirmed tubercular infection. He underwent radiofrequency fistulotomy using a Ellman radiofrequency device along with anti-tubercular treatment, which resulted in complete resolution, and healing.

Key Words: Anal fistula, Tuberculosis, Perianal suppuration, Anal cryptitis, Etiology.

Introduction

Anal tuberculosis is not an uncommon pathology found in the tropics. However, with the advent of effective antituberculous chemotherapy, the incidence is becoming distinctly less. We describe a case of multiple anal fistulae in a 45-year-old male with a tubercular affection of the perianal region leading to anal fistulae.

Case Report

A 45-years-man reported with complaint of repeated episodes of pain, swelling and pus discharge from around the anus. He was treated several times in the past at different hospitals for a perianal swelling thought to be an abscess. At times it was incised and drained and at other times was sought to be contained with antibiotics.

The treatment often resulted in arresting the symptoms for the time being but would recur after few weeks at newer places around the anus with the similar symptoms and presentations.

There were no complaints of abdominal pain or frequent stools. There was no history of passing mucus or blood per rectum. There was no history of the patient undergoing any other surgical procedure or of suffering from any major illness in the past. There was no history of tuberculosis in the family.

On clinical examination, the patient looked comfortable. Abdominal examination was normal.

Ano-rectal examination revealed eight pus-discharging openings around posterior midline of the anus with gross induration but minimum tenderness. There was no extension of the lesion in either of the ischio-rectal fossa. No internal opening into the rectum could be located (Figure 1).

Illustration 1

On rectal digitation, the anal sphincter tone was found adequate with no signs of any mass in the anal canal. The ano-rectal wall around the posterior midline was indurated.

The anoscope examination revealed a crater at the dentate line at 6 O‘clock position, which when compressed, expressed a bid of pus from the openings.

Hematological tests reported a rise in the leukocyte count with predominance of polymorphs and lymphocytes. The platelet count was normal, and the Erythrocyte Sedimentation Rate was 56 mm. The culture of the discharge from the opening did not note any bacterial growth. The chest radiograph and Mantoux test were normal.
A full-length colonoscopy was negative for any colonic lesion. Biopsy was taken under local anesthesia from one of the tracts. The histopathological examination of the tract tissue indicated granulomatous inflammation with presence of caseating granuloma, lymphocytes, epitheloid cells and Langhans’ giant cells.

The fistulous tracts were lay opened using a Ellman radiofrequency generating device [Ellman International Inc, Oceanside, NY, USA] after injecting methylene blue in one of the external openings. The dye emerged out from the crater at 6’O clock. Using the radiofrequency device, the crypts at the internal opening were excised and the bleeding points were cauterized. Cultures from the curetting grew a single colony of a fully sensitive \textit{Mycobacterium tuberculosis}. A quadruple therapy (rifampicin, isoniazide, pyrizinamide and ethambutol) was prescribed in the postoperative period.

**Results**

The patient was asked to report every 2 weeks to monitor the wound healing process. While he complained of soiling at night in the first 2 weeks, there was no complaint of incontinence for feces. The wounds started healing after 2 weeks and were found completely healed at the end of 14 weeks. The anti-tuberculous treatment continued for nine months. At the last follow-up after 36 months, no relapse had been noted and the man was in good health.

**Discussion**

Anal fistulae are said to arise from cryptoglandular infection of the anal glands, which lie within the intersphincteric space\(^1\). This infection then proceeds to a perianal abscess and subsequent fistula formation. The type and virulence of the micro-organism responsible may determine whether an anal fistula develops\(^4\).

Though tuberculosis of the gastro-intestinal tract is frequently encountered in tropical countries, tuberculosis of bowel distal to ileocaecal junction is rare in developed countries and is rarely considered as a differential diagnosis of proctological disorders\(^5\). Tuberculosis of gastrointestinal tract may be primary or secondary to a primary focus elsewhere\(^6\). Primary intestinal tuberculosis is attributable to bovine tubercle bacilli entering the system through milk intake.

While the rate of patients with extra pulmonary tuberculosis has increased globally in the last few years (about 5% of all cases) with display of a wide spectrum of its clinical manifestations, the anal localization still is a rare occurrence (0.7%) according to available published data\(^7\).

The possible cause of presence of multiple fistulae in this patient could be attributed to the negligence of episodes of developing perianal abscesses, followed by cryptoglandular infection, which were allowed to burst open on their own.

There should be a strong clinical suspicion of tuberculosis in endemic areas with such presentations as \textit{Mycobacterium} is one of the causes of granulomatous diseases within the anorectal region. Clinical diagnosis is usually dependent on microscopic detection using Ziehl-Neelsen stain and mycobacterial culture, but the sensitivity and specificity of these two methods are low\(^8\). As anal tuberculosis is rarely diagnosed correctly before operation on the basis of the clinical picture, the histopathological examination of the tract of the fistula is mandatory for the correct diagnosis of anal tuberculosis\(^9\).

Few other reported causes of multiple anal fistulae include hidradinitis suppurativa, actinomycosis, Bartholinitis, radiation injuries, lymphoma, and organized abscess\(^10\).

It is estimated that about 45% patients with perianal abscess are destined to develop anal fistula\(^11\). The treatment modalities of anal fistula includes fistulectomy, use of setons\(^12\), and fibrin
sealant\textsuperscript{13}, but we preferred a simple lay open technique of fistula tract [fistulotomy]\textsuperscript{14} which is still considered as a gold standard in anal fistula treatment. We used the radiofrequency device to perform the fistulotomy as it has been found to be less painful achieving early recovery and resulting in faster wound healing than the conventional fistulotomy procedures\textsuperscript{15}.

References


