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CASE REPORT

Anorectal syphilis mimicking Crohn's disease

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Abstract Anorectal syphilis, one of the great masqueraders in medicine, can be difficult to diagnose not only because of its variable symptoms but also because it is hard to think of unless a detailed history about sexual preferences and practices, including homosexuality, has been gathered. With increasing acceptance of sexual activity in our culture, despite moral and religious issues, various forms of sex have led to many different clinical conditions of sexually transmitted diseases. In this report, we describe a rare case of primary anorectal syphilis with clinical, endoscopic and histologic features that was misdiagnosed as Crohn's disease.

Keywords Anorectal syphilis · Sexually transmitted disease · Crohn's disease

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Introduction

Primary syphilis can present as anorectal chancre, which is classically painless. Although anorectal chancre may be asymptomatic, it may present with itching, bleeding, rectal discharge, constipation, and tenesmus [1, 2]. In the secondary stage of syphilis, rectal mass, condyloma lata and/or mucous patches can be observed [3]. The overall number of reported syphilis cases increased substantially in most European countries between 1998 and 2007, mostly among men [4]. Hence, risky sexual behaviors with regard to sexually transmitted diseases have increased, particularly unprotected anal intercourse [5]. Consequently, sexually transmitted diseases should be considered in patients with anorectal symptoms and a history of anal intercourse, and the possibility of anorectal syphilis should also be considered because the incidence of syphilis has risen over the last few years [6]. This case report of a homosexual man with primary anorectal syphilis who was misdiagnosed and treated for Crohn's disease aims to emphasize the significance of the disease and to help create awareness among physicians in order to avoid incorrect diagnosis, inappropriate treatment, and delayed antibiotic therapy [7].

Case report

A 38-year-old homosexual man presented with a 3-week history of proctalgia. There were no complaints of diarrhea, constipation, rectal bleeding, or melena. No gross abnormality was observed around the anus, but a hard mass was detected during digital rectal examination. A human immunodeficiency virus antibody test was negative. The tuberculin skin test (TST) was nonreactive, and erythrocyte sedimentation rate (ESR) was 28 mm/h. Computed

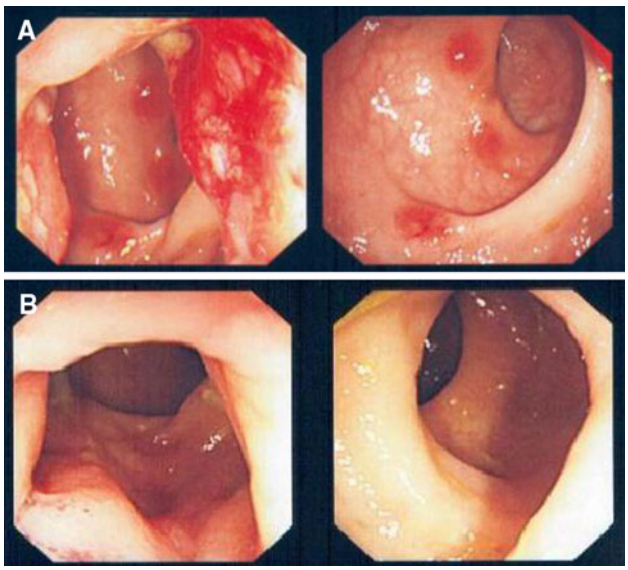

Fig. 1 **a** Sigmoidoscopy indicating multiple rectal chancres located on the wall of the rectum. **b** Follow-up sigmoidoscopy after 2.5 months reveals complete regression

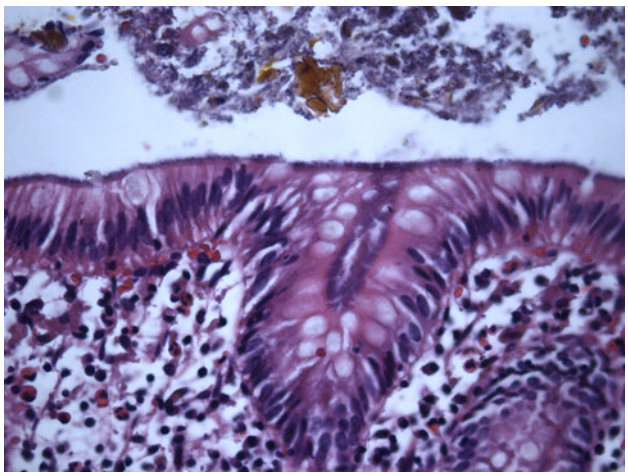

Fig. 2 Rectal mucosa showing heavy plasma-cell infiltration (hematoxylin and eosin stain, ×200)

tomography (CT) of the abdomen and pelvis was normal. A pan-colonoscopic examination including terminal ileum was performed, and a large, ulcerative, hard lesion with submucosal extension was seen in distal rectum (Fig. 1a). Histological findings of an endoscopic biopsy showed diffuse chronic inflammatory-cell infiltration predominantly by plasma cells with superficial necrosis, fibropurulent exudate, and granulomatous inflammatory crypt destruction (Fig. 2). No malignant cells were seen. As his clinical picture and histopathologic diagnosis was compatible with Crohn's disease, a regimen including mesalazine suppository, metronidazole and budesonide enema were initiated. Clinical improvement was observed within 3 weeks. Seven weeks after the initial colonoscopy, however, a follow-up digital rectal examination revealed persistence of the hard rectal mass. Since a repeat endoscopy showed persistence of the ulcerative lesion, further differential diagnosis included Wegener's granulomatosis, rectal tuberculosis (TB), and malignant processes. A rectal biopsy obtained at this time showed heavy lymphoid hyperplasia with granulomatous inflammation. As further questioning revealed an episode of rectal intercourse, rectal syphilis was suggested. The biopsy showed no findings for vasculitis and was negative for acid-fast bacillus stain. Antineutrophil cytoplasmic autoantibodies (ANCA) were negative, Venereal Disease Research Laboratory (VDRL) test was positive with a titer of 1:64, and fluorescent treponemal antibody absorption test (FTA-ABS) was reactive with a titer of 1:2,560. Based on the pathologic and serologic findings, we made a diagnosis of primary anorectal syphilis. The patient was treated with penicillin G benzathine (2.4 MU/week) IM for 3 weeks. A follow-up colonoscopic examination 2.5 months after initial examination was normal except for mild rectal erythema (Fig. 1b). A control rectal biopsy obtained after completion of the treatment was also normal, with no signs of spirochetal infection.

Discussion

Syphilis remains a major health problem throughout the world. Its incidence has increased disproportionately among socioeconomically disadvantaged minority populations, especially in major cities [8]. The World Health Organization reported that syphilis began to increase worldwide in the 1980s. Overall, increases were observed primarily among men who have sex with men (MSM) [9]. The rate of syphilis showed a steady increase in Istanbul over the last two decades partly because of alteration in sexual behavior and a great number of visitors from former Soviet Union who were shown to have a high rate of active syphilis [9, 10]. Proctitis has several infectious and non-infectious causes, the infectious pathogens typically being sexually acquired. Chlamydia, gonorrhoea, herpes simplex virus, and syphilis are among the sexually transmitted infections that can cause anorectal disease [1]. Primary anorectal syphilis is a rare disease. It is usually asymptomatic and, less frequently, presents as proctitis, ulceration, and pseudotumors [6, 11]. As it is difficult to diagnose, patients usually receive inappropriate treatments [7, 12, 13]. Primary syphilis can present as an anorectal chancre, which is classically painless. The clinical presentation may not differ from those of inflammatory bowel diseases [1]. Histopathologic examination of the rectal lesion in our case demonstrated chronic inflammation, lymphoplasmacytic infiltration and granulomatous

inflammation. The patient was treated presumptively for Crohn's disease; however, ulcerative lesion and mass in the rectum persisted.

People presenting with anorectal symptoms need to have a sexual history taken to establish whether anorectal intercourse has taken place and, if so, whether barrier protection was used. Anal sex is a prevalent sexual practice among both MSM and heterosexuals. Following an endoscopic biopsy that was suggestive of rectal syphilis, our patient admitted anorectal intercourse.

In conclusion, patients with anorectal syphilis may undergo unnecessary investigations and inappropriate treatments unless asked for a detailed sexual history about their preferences and practices. Sexually transmitted proctitis is common in MSM and should be considered in the differential diagnosis of an anorectal ulcerative lesion whenever the lesion is not responsive to initial treatment.

Conflict of interest None.

References

1. Hamlyn E, Taylor C. Sexually transmitted proctitis. Postgrad Med J. 2006;82:733–6.
2. Mandell GL, Bennett JE, Dolin R. Mandell, Douglas, and Bennett's principles and practice of infectious diseases. 7th ed. Philadelphia: Churchill Livingstone/Elsevier; 2009.
3. Rompalo AM. Diagnosis and treatment of sexually acquired proctitis and proctocolitis: an update. Clin Infect Dis. 1999; 28(Suppl 1):S84–90.
4. Savage EJ, Hughes G, Ison C, Lowndes CM. Syphilis and gonorrhoea in men who have sex with men: a European overview. Euro Surveill. 2009;14.
5. Elford J, Bolding G, Davis M, Sherr L, Hart G. Trends in sexual behaviour among London homosexual men 1998–2003: implications for HIV prevention and sexual health promotion. Sex Transm Infect. 2004;80:451–4.
6. Bassi O, Cosa G, Colavolpe A, Argentieri R. Primary syphilis of the rectum–endoscopic and clinical features. Report of a case. Dis Colon Rectum. 1991;34:1024–6.
7. Cha JM, Choi SI, Lee JI. Rectal syphilis mimicking rectal cancer. Yonsei Med J. 2010;51:276–8.
8. James WD, Berger TG, Elston DM, Odom RB. Andrews' diseases of the skin: clinical dermatology. 10th ed. Philadelphia: Saunders Elsevier; 2006.
9. Smacchia C, Parolin A, Di Perri G, Vento S, Concia E. Syphilis in prostitutes from Eastern Europe. Lancet. 1998;351:572.
10. Akturk AS, Bilen N, Demirsoy EO, Kiran R. The increase rates of syphilis in Turkey in the beginning of the third millennium. J Eur Acad Dermatol Venereol. 2009;23:1209–10.
11. Akdamar K, Martin RJ, Ichinose H. Syphilitic proctitis. Am J Dig Dis. 1977;22:701–4.
12. Quinn TC, Lukehart SA, Goodell S, Mkrtichian E, Schuffler MD, Holmes KK. Rectal mass caused by *Treponema pallidum*: confirmation by immunofluorescent staining. Gastroenterology. 1982;82:135–9.
13. Song SH, Jang I, Kim BS, Kim ET, Woo SH, Park MJ, et al. A case of primary syphilis in the rectum. J Korean Med Sci. 2005;20:886–7.