

# Delayed diagnosis of lymphogranuloma venereum-associated colitis in a man first suspected to have rectal cancer

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## Lesson

Lymphogranuloma venereum-associated colitis is a diagnosis that should not be missed. The following case represents the importance of a thorough history, including the importance of the sexual history to prevent the misdiagnosis of these patients.

## Keywords

Lymphogranuloma Venereum, Inflammatory Bowel Disease mimics, proctitis

## Introduction

Lymphogranuloma venereum (LGV) is a sexually transmitted disease caused by L1, L2 and L3 serovars of *Chlamydia trachomatis*.<sup>1</sup> We present a case of a man thought to have a diagnosis of rectal cancer, but on closer inspection was diagnosed with LGV-associated colitis.

## Case

A 53-year-old Caucasian male with no significant medical history presented to a colorectal surgical clinic under the 'two-week rule' with a one-year history of rectal bleeding, tenesmus, weight loss and faecal urgency. Rigid sigmoidoscopy performed in clinic showed fresh blood and a possible rectal mass. A provisional diagnosis of rectal cancer was made.

Flexible sigmoidoscopy showed an area of grossly oedematous, inflamed and friable mucosa up to 15 cm from the anal verge (Figure 1). Biopsies showed extensive acute inflammation, plasma cell-rich chronic inflammation and necrosis. No malignant cells were seen. Stains for acid-fast bacilli and fungi were negative. Stool microscopy was negative for *Escherichia coli*, *Salmonella*, *Shigella*, *Campylobacter species* and *Cryptosporidium parvum*. Computed tomography showed rectal wall thickening, perirectal

fat stranding and associated lymphadenopathy (Figure 2). Blood tests revealed a normocytic anaemia (haemoglobin 106 grams/Litre).

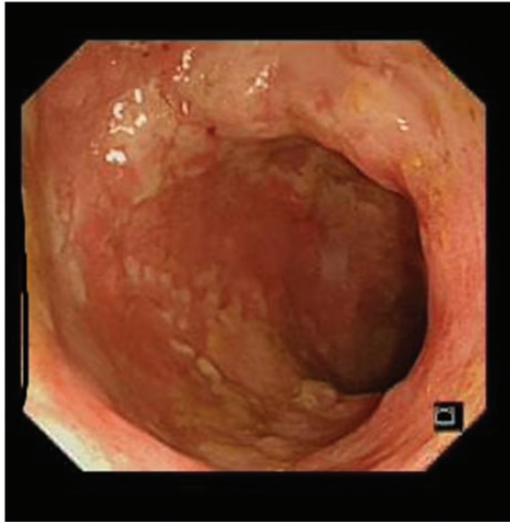
Although the patient was heterosexual and had been married for 15 years, following questioning, it emerged he had been the victim of an alleged sexual assault four years prior to the onset of his symptoms. A full sexually transmitted infection (STI) screen including human immunodeficiency virus (HIV) testing was negative at the time of the assault. Given the history and clinical findings, he was re-referred to the genitourinary medicine clinic.

Rescreening was negative for HIV and *Neisseria gonorrhoea*. However, the patient tested positive for *C. trachomatis* on polymerase chain reaction and nucleic acid amplification testing. A diagnosis of Lymphogranuloma venereum-associated proctitis was made. The patient was treated with doxycycline (100 mg twice a day for 21 days), and his symptoms settled within four months.

## Discussion

LGV is an STI caused by L1, L2 and L3 serovars of *C. trachomatis*. It primarily infects the lymphatics and can be transmitted through unprotected vaginal, anal or oral sexual contact. It is the most common cause of STIs in both males and females, but is more commonly reported in males because the early manifestations are more obvious in men. Women tend to present when they develop the complications of more advanced disease.<sup>1,2</sup> In terms of prevalence, a multi-centre cross-sectional survey performed in the United Kingdom looked at 4825 urethral and 6778 rectal samples from men who have sex with men (MSM) patients attending for sexual health screening and tested them for *C. trachomatis*. They found a prevalence of 3.25% in the urethral samples (157 positive tests) and 6.96% in the rectal samples (472 positive tests).<sup>3</sup>

**Figure 1.** Flexible sigmoidoscopy showing an area of grossly oedematous, inflamed and friable mucosa up to 15cm from the anal verge.



**Figure 2.** Computed Tomography showing rectal wall thickening, peri-rectal fat stranding and associated lymphadenopathy.



Rectal bleeding in young patients is often considered to be caused by infectious organisms such as *E. coli*, *Salmonella*, *Shigella* and *Campylobacter species*. Normally, these are contracted through food, travel, antibiotic usage or sexual practice. When these differentials are ruled out, often patients will be investigated for inflammatory bowel disease (IBD). However, LGV may mimic IBD or rectal

malignancy and is easily missed unless a full sexual history is obtained and appropriate tests performed.<sup>4</sup> The incidence of LGV infection among MSM is increasing.<sup>5</sup> The majority of cases of LGV occur in HIV-positive MSMs (HIV prevalence rates 58–100%),<sup>6,7</sup> but this case highlights that this presentation is not exclusive to this patient group.

LGV mistaken for IBD may be inappropriately treated with immunosuppressants, with the diagnosis only coming to light after failure of response to these agents. A study by Soni et al.<sup>8</sup> looked at patients with LGV proctitis and found that some of their patient cohort had been treated with antibiotics, 5-aminosalicylates and oral or topical steroids after a diagnosis of IBD and thus showed a failure to respond clinically or histologically.

Histological diagnosis is not possible, since features of ulcerative colitis and Crohn's diseases such as crypt architectural distortion and granuloma formation are also seen in LGV infection.<sup>9</sup> In longstanding LGV infection, transmural inflammation can occur, resembling Crohn's disease.<sup>10</sup>

Patients with LGV colitis may initially present to colorectal or gastroenterology clinics, or to their general practitioner, as they may not consider their symptoms to be related to their sexual activity. Thus, it is imperative that clinicians are aware of the occurrence of LGV proctitis, especially in MSM patients, to avoid diagnostic delay. Histopathologists should also be aware of the organism's mimicry of IBD and include LGV in their differential, as a history of risk factors may not accompany inflammatory colorectal samples sent to them.<sup>8</sup>

#### Declarations

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**Guarantor:** RP

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