Lymphogranuloma venereum

This ulcerative proctitis is increasing among men who have sex with men

In January 2004 Dutch authors reported an outbreak of lymphogranuloma venereum in men who have sex with men in the Netherlands, launching a European alert.^{w1} The UK Health Protection Agency began an initiative to raise awareness of lymphogranuloma venereum and improve its diagnosis and surveillance.^{w2} Since then hundreds of cases have been identified in the United Kingdom, Europe, and the United States.

Lymphogranuloma venereum is a systemic sexually transmitted infection caused by *Chlamydia trachomatis* serovars L1-L3. Unlike the oculogenital strains (serovars A-K) of *C trachomatis* which cause mucosal disease, these organisms invade and destroy lymphatic tissue. Lymphogranuloma venereum has been considered a tropical sexually transmitted infection, endemic in parts of Africa, Asia, and the Caribbean but rare in the developed world. Men who have sex with men predominantly present with an anorectal syndrome of proctitis or proctocolitis rather than genital ulceration with inguinal "buboes" (inflammatory lymph node swellings that may suppurate and rupture).^{w3}

By the end of 2005, 292 cases had been diagnosed across the UK, mostly in the London area (personal communication, chair of the UK LGV Incident Group, 6 Jan 2006). As in the rest of Europe, all UK cases have occurred in men who have sex with men who are predominantly white and HIV positive (80%).^{w4} Infection has been associated with high risk sexual behaviours including unprotected anal intercourse and "fisting" (insertion of a hand into the rectum). Most of these men reported multiple and often anonymous sexual contacts, and many also had other sexually transmitted infections, including seroconversion for hepatitis C and HIV in the absence of risky injecting behaviours.^{w5}

In some cases the epithelium bleeds easily, ulcerates, and is covered by mucopurulent exudate. The differential diagnosis includes inflammatory bowel disease, anal fissure, and other sexually transmitted infections such as gonorrhoea, syphilis, and herpes simplex and, among patients who are HIV positive, cytomegalovirus infection. Lymphogranuloma venereum is commonly misdiagnosed as ulcerative colitis or Crohn's disease, and many patients have been treated initially and wrongly with immunosuppressive agents. These patients may not declare their homosexual activity or their HIV infection. In this issue (p 99) Williams and Churchill illustrate the typical clinical features seen in three cases of lymphogranuloma venereum proctitis and demonstrate the pitfalls that have been associated with its recognition and diagnosis.^{w6}

A firm diagnosis of lymphogranuloma venereum depends on detecting an L-serovar of *C trachomatis* from the site of infection. Nucleic acid amplification tests have provided suitable diagnostic samples for this purpose recently in the UK, and the Health Protection Agency has confirmed strains of lymphogranuloma

venereum by using molecular methods. A rectal swab for chlamydia should be taken at proctoscopy; only a chlamydia positive specimen that is subsequently proved to be an L-serovar confirms the diagnosis of lymphogranuloma venereum proctitis. Serology may be useful if direct detection has been unsuccessful. The traditional complement fixation test detects only the genus, and newer serological tests based on micro-immunofluorescence are needed to identify the serovar.^{w7} These have a higher sensitivity and specificity than the complement fixation test and yield a high titre in most cases of established lymphogranuloma venereum. A suitable swab sample is important for detecting chlamydia, but in resource poor settings a clinical diagnosis combined with positive serology may suffice. Histopathology of rectal biopsies shows non-specific acute or chronic inflammation and does not differentiate this disorder from other causes of proctitis.

After screening for other sexually transmitted infections (serology for HIV, syphilis, and hepatitis C) patients should then try empirical treatment with doxycycline 100 mg twice daily for three weeks. Second line treatment with erythromycin 500 mg four times daily orally for 21 days can be used as an alternative.^{w8} Local genitourinary medicine clinics can facilitate follow-up and contact tracing.

Anorectal lymphogranuloma venereum has an excellent prognosis if the disease is recognised and treated promptly. Complications such as abscesses, fistulae, and rectal strictures (strictures have been rare in the current outbreak thus far) worsen the prognosis. Transmission of HIV and hepatitis C through the damaged anorectal tissue is probably the most important adverse outcome, especially when diagnosis and treatment are delayed.

Initial reports suggested that this European outbreak was caused by infection imported from the developing world, yet *C trachomatis* has been recognised for decades as a pathogen in proctitis in men who have sex with men in the developed world.^{w9} Other strains of *C trachomatis* commonly cause rectal infections in men who have sex with men, yet these are not universally or routinely screened for, even in genitourinary medicine settings.^{w10} Meanwhile, diagnoses of other sexually transmitted infections in men who have sex with men have increased steadily, reflecting increasing levels of high risk sexual behaviour and posing a broad challenge for health promoters.

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References are on bmj.com

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