Notes from the Field

Cluster of Lymphogranuloma Venereum Cases Among Men Who Have Sex with Men — Michigan, August 2015–April 2016

Alex de Voux, PhD^{1, 2}; James B. Kent, MS³; Kathryn Macomber, MPH³; Karen Krzanowski, MA, MPH⁴; Dawn Jackson⁴; Tayneata Starr⁴; Sandra Johnson⁴; Deborah Richmond, MSN⁵; Lawrence R. Crane, MD⁵; Jonathan Cohn, MD⁵; Christopher Finch⁵; Jevon McFadden, MD⁶; Allan Pillay, PhD²; Cheng Chen, PhD²; Laurie Anderson²; Ellen N. Kersh, PhD²

Lymphogranuloma venereum (LGV) is a sexually transmitted disease (STD) caused by infection with invasive Chlamydia trachomatis serovars L1-L3 (1). LGV is characterized by inguinal and/or femoral lymphadenopathy, typically following a transient, self-limited genital ulcer or papule that might go unnoticed. Rectal infection can result in proctocolitis that can present with mucoid and/or hemorrhagic rectal discharge, anal pain, constipation, fever, and tenesmus, and signs of granulomas and/or ulcerations on anoscopy (1,2). LGV can be an invasive, systemic infection, and if it is not treated early, LGV proctocolitis can lead to chronic colorectal fistulas and strictures (2). In Europe, outbreaks of LGV have been reported among men who have sex with men (MSM), often in association with human immunodeficiency virus (HIV) coinfection (3–5). The prevalence of LGV in the United States is unknown (1), because diagnostic tests to differentiate LGV from non-LGV *Chlamydia trachomatis* are not widely available (6), and providers might not know that they should report cases that are presumptively treated.

On August 12, 2015, a patient attending a clinic in Michigan for HIV care, who had clinical symptoms compatible with LGV, was reported to the Michigan Department of Health and Human Services (MDHHS). The patient was a black MSM with HIV infection, who had an inguinal node and an open, nonhealing penile ulcer; a swab of the ulcer was positive for Chlamydia trachomatis. Before this case, the last reported case of LGV in Michigan was in 2005. In September 2015, three additional patients with symptoms and clinical findings compatible with LGV were reported in Michigan, and on September 22, MDHHS initiated an outbreak investigation. A case definition was developed (Box), and two health alerts were issued, urging providers to consider LGV as a diagnosis in patients with lymphadenopathy or proctocolitis of unclear etiology and to report suspected cases to MDHHS. MDHSS also investigated sexual partners of diagnosed patients. CDC was notified on September 23, and offered a laboratory-developed molecular test for LGV-specific strains (6).

BOX. Case definition of lymphogranuloma venereum (LGV) included in Michigan Health Alert Network sent out on October 22, 2015

Suspected case

- A clinically compatible illness in a person with one or more signs or symptoms compatible with LGV (proctocolitis, inguinal/femoral lymphadenopathy, or genital or rectal ulcers), and
- A sexual partner of a person meeting the probable or confirmed case definition.

Probable case, either or both of the following:

- A patient meeting the suspected case definition, in whom other causes of LGV-like symptoms (e.g., syphilis, gonorrhea, and herpes simplex virus) have been ruled out, and a positive *Chlamydia trachomatis* from culture or nucleic acid amplification test (NAAT) from a body site associated with symptoms.
- Sexual partner of a person meeting the probable or confirmed case definition and a positive *C. trachomatis* from culture or NAAT.

Confirmed case

 A probable case with laboratory confirmation for C. trachomatis genotypes L1, L2, or L3 by genetic analysis (LGV-specific polymerase chain reaction or sequencing).

During August 12, 2015–April 30, 2016, MDHHS received 38 reports of LGV all among MSM who were HIV-infection.

Among these 38 reports, 21 (55%) were confirmed by CDC, based on 19 positive rectal swab specimens and two positive swabs from penile lesions. Eleven probable and six suspected cases were also identified. Among the 21 confirmed cases, one was Hispanic white, and 20 were black. The median age was 29 years (range = 19–60 years). The median CD4 count was 483 cells/ml (range = 270–1,271 cells/ml); HIV RNA was undetectable (<20 copies/ml) in 12 patients and in the remaining nine patients, the median was 7,030 copies/ml. Among all 38 confirmed, probable, and suspected cases, six (16%) were in persons with newly diagnosed HIV infection. Four (11%) patients had hepatitis C infection, six (16%) had syphilis, three (8%) had asymptomatic oropharyngeal gonorrhea, and five (13%) had asymptomatic rectal gonorrhea. Proctitis was present in 19 (50%) patients. All patients were treated according to CDC recommendations (2) with 100 mg doxycycline twice daily for 21 days.

LGV should be considered in the differential diagnosis of lymphadenopathy or proctocolitis with no other etiology, especially among HIV-infected MSM. Among patients with symptoms or signs suggestive of LGV, presumptive treatment should be offered at the initial health care visit. All confirmed, probable, and suspected cases of LGV should be reported to the local health department. Sexual contacts of LGV cases should be examined, tested for *Chlamydia trachomatis* at the anatomic sites of exposure and, if no symptoms or signs are present, treated presumptively with 100 mg doxycycline twice daily for 1 week (2). Additional information is available at http://www.cdc.gov/std/tg2015/lgv.htm.

Corresponding author: Alex de Voux, AdeVoux@cdc.gov, 404-639-1203.

References

- Perine P, Stamm W. Lymphogranuloma venereum. In: Holmes KK, Sparling P, Mardh P, et al., eds. Sexually transmitted diseases. 3rd ed. New York: McGraw-Hill Health Professions Division; 1999: 423–32.
- 2. Workowski KA, Bolan GA. Sexually transmitted diseases treatment guidelines, 2015. MMWR Recomm Rep 2015;64(No. RR-3).
- 3. van de Laar MJW, Gotz HM, de Zwart O, et al. Lymphogranuloma venereum among men who have sex with men—Netherlands, 2003–2004. MMWR Morb Mortal Wkly Rep 2004;53:985–8.
- Childs T, Simms I, Alexander S, Eastick K, Hughes G, Field N. Rapid increase in lymphogranuloma venereum in men who have sex with men, United Kingdom, 2003 to September 2015. Euro Surveill 2015;20:30076. http://dx.doi.org/10.2807/1560-7917.ES.2015.20.48.30076
- Saxon C, Hughes G, Ison C; UK LGV Case-Finding Group. Asymptomatic lymphogranuloma venereum in men who have sex with men, United Kingdom. Emerg Infect Dis 2016;22:112–6. http://dx.doi.org/10.3201/ EID2201.141867

¹Epidemic Intelligence Service, Division of Scientific Education and Professional Development, CDC; ²Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC; ³Michigan Department of Health & Human Services, Division of Communicable Diseases; ⁴Michigan Department of Health & Human Services, Division of HIV and STD Programs; ⁵Wayne State University School of Medicine, Detroit, Michigan; ⁶Career Epidemiology Field Officer Program, Office of Public Health Preparedness and Response, CDC.