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## Correspondence

# A case of urogenital lymphogranuloma venereum in Taiwan



## KEYWORDS

*Chlamydia trachomatis*; L2b; Urethritis; Lymphogranuloma venereum; Men who have sex with men

## Dear Editor

*Chlamydia trachomatis* is an obligate intracellular bacterium leading to swelling and inflammation and often causing genital skin lesions and inflammation of regional inguinal lymph nodes. The genovars L1, L2, and L3 are responsible for lymphogranuloma venereum (LGV). LGV was first reported in 1943<sup>1</sup> and was initially found to be prevalent among men who have sex with men (MSM) in western countries since 2003, predominantly due to the genovar L2b.<sup>2</sup> LGV has been considered a rare disease in western countries, but it is endemic in Africa, Latin America, Caribbean, and southeast Asia.<sup>2</sup> A cross-sectional surveillance study on rectal chlamydia among MSM conducted in southern Taiwan between January 2020 and April 2022 is the first article reporting symptomatic rectal LGV in the Far East.<sup>3</sup> However, typical LGV with urethritis and swelling inguinal lymphadenopathy (*i.e.*, bubo) has not yet been microbiologically confirmed and reported in Taiwan. The first case of urethritis due to *C. trachomatis* genovar L2b was reported in 2006.<sup>4</sup> Here we report the first case of urethritis and bilateral inguinal lymphadenopathy due to *C. trachomatis* L2b in Asia.

A 32-year-old man having sex with men had the experience of online dating and one-night stands, and self

reported anal rimming, both insertive and receptive anal sex, and rarely used condoms. He has been informed that his partner had gonorrhoea on December 9, 2022. The next day he received anonymous voluntary counseling and testing (VCT) for *Treponema pallidum*, human immunodeficiency virus infection, and STD surveillance for *C. trachomatis*, *Neisseria gonorrhoeae*, *Mycoplasma genitalium*, *Trichomonas vaginalis*, *Mycoplasma hominis*, *Ureaplasma urealyticum*, and *Ureaplasma parvum*, from samples of oral rinse, urine, and rectal swabs using a multiplex polymerase chain reaction (PCR) kit (Allplex™ STI Essential Essay, Seegene, South Korea). On the same day, he received oral azithromycin from a physician for empirical treatment of gonorrhoea. Serological testing for *T. pallidum* or HIV infection was negative. However, asymptomatic rectal *N. gonorrhoeae* infection was noted by the multiplex PCR test. The second round of STD PCR tests was conducted on February 18, 2023, when burning urination developed simultaneously. A few days later, swollen bilateral inguinal lymph nodes were noted. The STD PCR tests detected only *C. trachomatis* in the urine sample.

Further genotyping was performed by sequencing of *ompA* as previously described.<sup>5</sup> In brief, DNA was extracted from the *Chlamydia*-positive urine sample by the QIAamp DNA mini kit (Qiagen, Hilden, Germany), and the extracted DNA was sequenced by a nested PCR across four variable domains (VS1-VS4) of *ompA* by the 1130-bp outer primer pair, including NLO (5'-ATGAAAAAAGCTTTGAAATCG-3') and NRO (5'-CTCAACTGTAAGTGGTATTT-3') and the 584-bp inner primer pair, including MOMP87 (5'-TGAACCAAGCCT-TATGATCGACGGA-3') and C214 (5'-TCTTCGAYTTTGGTTA-GATTGA-3'). The amplified fragment was 100% identical to *ompA* of *C. trachomatis* L2b (GenBank accession number: JN795427). He received doxycycline for 3 weeks since late March 2023 and the symptoms resolved completely.

Urogenital LGV may present with ulcerative lesions with regional lymphadenopathy, and if left untreated, LGV urethritis can lead to long-term consequences, such as

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lymphedema, bubo rupture, or sinus tracts, while rectal LGV may result in anal ulcer, strictures, and fistula. The first-line treatment is doxycycline for 21 days.<sup>2</sup> Clinicians in Taiwan need to pay attention to the emerging urogenital and rectal LGV to provide appropriate medical care and to prevent chronic complications. The at-risk population for STDs, such as MSM, are encouraged to receive regular STD testing for *T. pallidum*, HIV, and other STD pathogens in oral, rectal, and urine samples.

### Declaration of competing interest

There are no conflicts of interest to be declared by the authors.

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