Unusual presentation of early lymphogranuloma venereum in an HIV-1 infected patient: effective treatment with 1 g azithromycin

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Lymphogranuloma venereum (LGV) is a sexually transmitted disease (STD) endemic to parts of Africa, South East Asia, South America, and some Caribbean islands. In the western world, the incidence is low and most cases are considered to be imports. Early stages of LGV are characterised by bubonic disease following a painless papule or small ulcer. We report a white bisexual male who presented with a painful perianal ulcer, inguinal lymphadenitis, and concomitant infection with human immunodeficiency virus 1 (HIV-1). Chlamydia trachomatis serovar L2 was identified as the cause after polymerase chain reaction and genotyping the major outer membrane protein by restricted fragment length polymorphism. Treatment with a single dose of 1 g azithromycin was effective. This case illustrates that early LGV may mimic other genital ulcer diseases, such as genital herpes or chancroid, especially in HIV infected patients. In the western world, LGV must still be included in the differential diagnosis of bubonic disease with or without sexually acquired ulcers.

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The incidence of lymphogranuloma venereum (LGV) is low in the western world. Early LGV is characterised by bubonic disease following a painless papule or small ulcer. We report a white bisexual male who presented with a painful perianal ulcer, inguinal lymphadenitis, and concomitant infection with human immunodeficiency virus 1 (HIV-1). Chlamydia trachomatis serovar L2 was identified as the cause after polymerase chain reaction and genotyping the major outer membrane protein by restricted fragment length polymorphism. Treatment with a single dose of 1 g azithromycin was effective.

This case illustrates that early LGV may mimic other genital ulcer diseases, such as genital herpes or chancroid, especially in HIV infected patients. In the western world, LGV must still be included in the differential diagnosis of bubonic disease with or without sexually acquired ulcers.
LGV. However, Rompalo et al\(^1\) reported that HIV infected patients (mean CD4\(^+\) count: 0.66 \(\times 10^9/l\)) with genital ulcer disease (GUD) are more likely to present with deeper, larger, and multiple lesions. The patient reported here had a low CD4\(^+\) count (0.27 \(\times 10^9/l\)) and presented with a large and painful perianal ulcer mimicking severe genital herpes or chancroid. The final diagnosis of LGV was based on the presence of \(C\) trachomatis\(^{12}\) serovar L2 in combination with the negative VDRL test, immunofluorescence, and Giemsa staining. Moreover, detection of \(H\) ducreyi was negative in M-PCR from the ulcer swab, and in cultures from both bubo pus and the ulcer. However, these diagnostic techniques are less than 100% sensitive.\(^{11,12}\)

According to the current European STD guidelines, the recommended treatment of early LGV is 100 mg doxycycline twice daily for 21 days. Uncomplicated chlamydial infections with non-LGV strains are effectively treated with a single oral dose of 1 g azithromycin.\(^{13}\) Clinical evidence is lacking on its use in LGV.\(^{14}\) Our patient responded well to a single dose of 1 g azithromycin, demonstrating its possible effectiveness in early LGV. Treatment recommendations in HIV infected patients are the same, although it is presumed that the time to heal may be prolonged in these patients.\(^{15}\) Recently, Moodley et al\(^{16}\) reported that HIV-1 co-infection was not associated with a decreased response to treatment. The findings in our patient support their observations.

We conclude that in the western world LGV must still be included in the differential diagnosis of bubonic disease with or without sexually acquired ulcers, even when the patient denies sexual contact with partners from endemic regions. Physicians in the West must also remain vigilant for the possibility of local outbreaks of LGV as a result of ever increasing travel to and from the endemic areas.

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CONTRIBUTORS

RFN was responsible for clinically managing the patient, reviewed the literature, and wrote the manuscript; JMO was responsible for the laboratory diagnosis, advised on microbiological aspects of managing the patient, and reviewed and revised the manuscript; WlvdM supervised the management of the patient and reviewed and revised the manuscript; HAMN is Head of the Department of Dermatology and Venereology and critically commented on the manuscript.

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Figure 1  Painful perianal ulcer with irregular ulcer rim.

Figure 2  Fine needle aspiration from the bubo in the right groin.

Figure 3  PCR based RFLP genotyping. Lanes 1 and 7 show a 100 bp ladder (arrow indicates the thick 600 bp band). Lanes 2–4 show laboratory reference strains L1, L2, and L3, respectively. Lane 5 and 6 show the urine and rectal specimen of the patient.

Key messages

- Although very rare, this case proves that lymphogranuloma venereum (LGV) still exists in the West, and therefore western physicians must remain vigilant for local outbreaks of LGV.
- In HIV infected patients, the presentation of LGV may be unusual mimicking genital ulcer diseases such as chancroid and genital herpes.
- The presented case suggests that a single dose of 1 g azithromycin is possibly effective in treating early LGV.
REFERENCES

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