**eP564**
**ePoster Viewing**
**STD and other genital infections**

# PREVALENCE AND PREDICTORS OF LYMPHOGRANULOMA VENEREUM IN A HIGH-RISK POPULATION IN ITALY

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| | LGV negative n = 95 | LGV positive n = 13 | *P* value |
|---|---|---|---|
| **Reported symptoms % (n)** | 20% (19) | 100% (13) | <0.001 |
| **Mean age (±SD) (range)** | 34 years (±9.5) (18-64) | 43 years (±6.3) (27-53) | 0.0008 |
| **Presence of coinfections* % (n)** | 47.3% (45) | 92.3% (12) | 0.0023 |
| **HIV infection % (n)** | 10.5% (10) | 69.2% (9) | <0.001 |
| **Syphilis infection % (n)** | 16.8% (16) | 69.2% (9) | <0.001 |
| **Gonorrhoea infection† % (n)** | 17.8% (17) | 23.0% (3) | 0.6519 |
| **Non-L serovar *Chlamydia trachomatis* infection† % (n)** | 13.7% (13) | 0% (0) | 0.155 |
| **HBV infection** | 3.2% (3) | 30.8% (4) | 0.001 |
| **HCV infection** | 1.1% (1) | 7.7% (1) | 0.570 |
| **HPV genital warts** | 10.5% (10) | 30.8% (4) | 0.110 |

**Table 1. Statistical analysis of the subjects by their LGV status.**

*A patient was considered coinfected when at least one of the following infections were present: HIV, gonorrhoea, non-L CT, HBV, HCV, HPV genital warts.

†A patient was considered non-L CT positive or gonorrhoea positive when at least one of the site tested (pharyngeal swab and/or anal swab and/or urine sample) resulted positive.

## Objectives

Lymphogranuloma venereum (LGV) is a systemic sexually transmitted disease (STD) caused by *Chlamydia trachomatis* (CT) genotypes L1-L3. Since 2003, a new outbreak of LGV infection, characterized by an anorectal primitive syndrome has been described in Industrialized Countries, mainly in men who have sex with men (MSM).

Here, we evaluated LGV prevalence and predictors in a high risk population attending the STD Outpatients Clinic of St. Orsola Hospital of Bologna, in the North of Italy.

## Methods

From January 2012 to April 2013, a total of 108 patients (99 MSM and 9 women), complaining of anorectal symptoms or with a history of unsafe anal intercourses, were enrolled for the study. At clinical examination, the external genitalia, perianal skin and anal mucosa were evaluated for the presence of lesions and genital warts.

Anorectal and pharyngeal swabs as well as urine specimens underwent CT and *Neisseria gonorrhoeae*

(GC) DNA detection by Versant CT/GC DNA 1.0 Assay (Siemens Healthcare Diagnostics). *omp1* gene semi-nested PCR followed by RFLP analysis was used for CT molecular typing of all the CT positive samples. Finally, microbiological investigations for the main STDs (HIV, HCV, HBV and syphilis) were performed.

**Results**

L2 genotype was identified in 13/108 (12%) rectal swabs, while no urine sample nor pharyngeal swabs were found positive for LGV. All LGV cases were from MSM, declaring high-risk sexual behaviour (several partners in the last six months and occasional condom use). Moreover, all of them complained about various anorectal symptoms. Patients first attending the STD Outpatient Clinic received a significant earlier LGV diagnosis than those first seeking care from general practitioners or gastroenterologists (P=0.0046). All LGV positive patients but one suffered from other STDs; in particular, 9 were HIV-positive.

Statistical significant differences between LGV-positive and LGV-negative subjects are shown in table 1. Multivariate logistic regression analysis revealed that HIV and syphilis infections are strong risk factors for LGV presence (respectively, P=0.001 and P=0.010).

**Conclusion**

LGV prevalence and characteristics found in our population are in agreement with international reports. Even if our results do not provide sufficient evidence to recommend routine screening of anorectal swabs in high-risk populations, they strongly suggest to perform CT NAAT tests and genotyping on rectal specimens in presence of ulcerative proctitis in HIV and/or syphilis-positive MSM. In this context, CT DNA detection by Versant CT/GC 1.0 Assay, followed by RFLP analysis of *omp1* gene amplicons is an excellent diagnostic algorithm for LGV identification.