

Chlamydia trachomatis in the Throat: Is Testing Necessary?

Helena Carré¹, Anne-Christine Edman², Jens Boman² and Elisabet Nylander^{1*}

¹Department of Clinical Medicine and Public Health/Dermatology and Venereology, ²Department of Laboratory Medicine/Virology, University Hospital, SE-901 85 Umeå, Sweden. *E-mail: elisabet.nylander@dermven.umu.se
Accepted August 20, 2007.

Sir,

Sexual habits have changed over the last few years, including an increase in the practise of oral sex. As a result, the frequency of genital herpes simplex virus type I infections has increased (1). Because of these changing habits, this study aimed to investigate whether patients attending our venereological clinic are also infected by *Chlamydia trachomatis* in the throat. Knowledge about extra-genital *C. trachomatis* infection in the throat is not extensive, and the prevalence of *C. trachomatis* in patients complaining of sore throat is unknown.

MATERIALS AND METHODS

A total of 172 patients (92 men, 80 women) attending the Venereological Clinic, Department of Dermatology and Venereology, University Hospital, Umeå, during 2002 to 2006, for *C. trachomatis* tests and confirming practising oral sex within the last 6 months were included in the study. All patients reported heterosexual contacts only.

Tests were taken both as pharyngeal swabs and by letting the patient gargle 10 ml of water for about 30 s and then spit it into a test tube. Both tests were taken from the same patient and the swab was placed in the tube with the water that had been gargled. All patients were also tested for cervical or urethral *C. trachomatis* in urine samples and a swab taken from the cervix and transported to the laboratory in the urine sample. Patients with symptoms in the eyes were also tested with a swab rolled on the inside of the conjunctiva.

Swab and gargle tests, urine/cervix or urine samples and eye samples were analysed by nucleic acid amplification test (NAAT). Detection for *C. trachomatis* was made by Becton & Dickinson ProbeTec ET an strand displacement amplification (SDA) test (2).

RESULTS

Four out of 172 (2.3%) patients, 3 women and 1 man, tested positive for *C. trachomatis* in the throat. They all also tested positive in the urine and 3 of them, 2 women and 1 man, in the eye as well.

This means that 2.3% of the patients were positive regarding *C. trachomatis* in the throat. In the genital/urethral *C. trachomatis* sample 12.9% were positive, and 1.8% were positive regarding *C. trachomatis* in the eye. Some patients complained of sore throat, most of them due to a cold, and 3 out of 4 of the patients with *C. trachomatis* in the throat were found to be completely free of throat symptoms.

DISCUSSION

In our opinion it is impossible to identify patients infected with *C. trachomatis* in the throat by clinical symptoms and signs alone.

Our findings of a frequency of *C. trachomatis* in the throat of 2.3% is in accordance with that of Kent et al. (3), who found a prevalence of pharyngeal *C. trachomatis* among men having sex with men (MSM) of 1.4%; and Winter et al. (4) who had a prevalence of 1.5% in a study of 264 patients, sexual preference unknown. Coughlan & Young (5) found no pharyngeal *C. trachomatis* in 297 patients, 18 women and 279 men, mostly MSM. Regarding our *C. trachomatis* positive patients, 4 out of 22 patients, 18%, 3/15 women and 1/7 men were positive in the throat as well as in the cervix/urethra. The remaining 144 patients were *C. trachomatis* negative both in the urogenital tract and the throat, raising the question as to whether the patients were *C. trachomatis* negative in the throat simply because of no exposure to infection. In a Japanese study (6) a 6% positive rate was found by swabs and 10% by oral wash specimens among *C. trachomatis* positive males.

Patients testing positive for *C. trachomatis* in the throat had no more symptoms or signs than the other patients, nor a different sexual history. We believe, in accordance with a former study by Winter et al. (4), that we will find most or all of these patients by conventional testing of urine and cervical/vaginal samples. The method of detecting *C. trachomatis* in the throat is not validated in the same way as for genito-urethral *C. trachomatis* (3). However, we do not know whether this site of infection has any further clinical implications and whether standard treatment is sufficient for eradicating *C. trachomatis* in these patients. In addition, it is not known if there are patients who are infected only in the throat, who may transmit the infection to their partners via oral sex and/or by kissing, and whether the risk of infection differs between men and women. Consequently, we suggest further study of *C. trachomatis* in the throat and re-testing after treatment for pharyngeal *C. trachomatis* in order to optimize the treatment and handling of these patients.

ACKNOWLEDGEMENTS

We would like to thank the nurses at the Venereological Department for helping with the *C. trachomatis* tests.

REFERENCES

1. Löwhagen G-B, Tunbäck P, Andersson K, Bergström T, Johannisson G. First episodes of genital herpes in a Swedish STD population: a study of epidemiology and transmission by the use of herpes simplex virus (HSV) typing and specific serology. *Sex Transm Inf* 2000; 76: 179–182.
2. Lister NA, Tabrizi SN, Fairley CK, Garland S. Validation of Roche COBAS Amplicor assay for detection of *Chlamydia trachomatis* in rectal and pharyngeal specimens by an omp1 PCR assay. *J Clin Microbiol* 2004; 42: 239–241.
3. Kent CK, Chaw JK, Wong W, Liska S, Gibson S, Hubbard G, Klausner JD. Prevalence of rectal, urethral, and pharyngeal chlamydia and gonorrhoea detected in 2 clinical settings among men who have sex with men: San Francisco, California, 2003. *Clin Infect Dis* 2005; 1; 41: 67–74.
4. Winter AJ, Gilleran G, Eastick K, Ross JD. Comparison of a ligase chain reaction-based assay and cell culture for detection of pharyngeal carriage of *chlamydia trachomatis*. *J Clin Microbiol* 2000; 38: 3502–3504.
5. Coughlan E, Young S. Screening for pharyngeal *chlamydia trachomatis* in asymptomatic men who have sex with men. *N Z Med J* 2006; 119: 1232.
6. Hamasuna R, Hoshina S, Imai H, Jensen JS, Osada Y. Usefulness of oral wash specimens for detecting *chlamydia trachomatis* from high-risk groups in Japan. *Int J Urol* 2007; 14: 473–475.