Glans Swabs Are Not Appropriate Specimens for Diagnosis of Chlamydia trachomatis Infection in Asymptomatic Men

We read with extreme interest the article by Moncada et al. (2) about the use of self-collected glans and rectal swabs for the detection of Chlamydia trachomatis in symptomatic and asymptomatic men who have sex with men (MSM). Indeed, our data complete and confirm those of Moncada et al., as we obtained similar results from a large population of asymptomatic men, including heterosexuals and MSM. We evaluated self-collected glans swabs (GS) and first-catch urine (FCU) from asymptomatic heterosexual men and MSM attending the screening center (anonymous and free of charge) in Bordeaux, France, from February to December 2007. Patients were less than 30 years old and had at least one risk factor. Each patient provided a self-collected GS using a flocked swab (Copan Italia S.p.A., Italy) and an FCU specimen (approximately 10 ml). Initially, swabs were placed into 500 μl of M4RT transport medium (method 1). Later, a pooling strategy that consisted of discharging GS into 500 μl of FCU (GS plus FCU; method 2) was evaluated. Both samples (GS versus FCU or GS plus FCU versus FCU) were simultaneously tested for C. trachomatis using the real-time PCR assay COBAS TaqMan CT test, CTM CT (Roche Diagnostics). Pairs of specimens with only one positive PCR result were restested by CTM CT assay and by an in-house real-time PCR assay targeting the omp1 gene. A patient was considered to be infected by C. trachomatis when both specimens were positive or when one specimen was positive by both PCR tests.

A total of 344 men were tested using the method 1 collection procedure (1). GS and FCU PCR results were positive and concordant in 15 cases, but for 19 cases, they were discordant. After analysis of discrepancies, 27 patients (7.8%) were considered infected. The sensitivity (94.7%; 18/19) was identical for FCU specimens and for GS discharged in FCU, with similar cycle threshold means of at least 4 between FCU (33.2) and PS (38.5), given by the CTM CT assay. The low bacterial load could also explain the discrepancy (method 2) on 259 consecutive men. GS plus FCU and FCU PCR results were positive and concordant in 17 cases, but for 10 cases, they were discordant. After analysis of discrepancies, 19 patients (7.3%) were considered infected. The sensitivity (94.7%; 18/19) was identical for FCU specimens and for GS discharged in FCU, with similar cycle threshold means of at least 4 between both specimens. Thus, pooling GS in FCU did not seem to increase the detection rate of this organism.

To conclude, as with Moncada et al. and others (2, 3), we described a poor sensitivity with GS for the detection of C. trachomatis in asymptomatic heterosexual men and MSM, confirming the inaccuracy of self-collected GS for that purpose. GS cannot replace FCU as noninvasive self-collected specimens in C. trachomatis screening programs.

REFERENCES


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*Published ahead of print on 24 June 2009.