Cloudy Cervical Discharge Tied to M. genitalium

BY MICHELE G. SULLIVAN Mid-Atlantic Bureau

CHICAGO — A cloudy cervical exudate observed on clinical exam is strongly associated with *Mycoplasma genitalium* infections, especially in women older than 25 years.

The age correlation suggests a different immunologic response to the bacterium in older women, and may partially explain the conflicting literature regarding the association of *M. genitalium* and cervicitis, Lisa Manhart, Ph.D., said at a conference on STD prevention sponsored by the Centers for Disease Control and Prevention.

Dr. Manhart and her associates examined *M. genitalium* infections in 1,038 women aged 14-46 years who attended a public STD clinic from 2000 to 2006. All of the women underwent an external and internal pelvic exam; providers collected urine specimens and cervical swabs, and the women submitted a self-collected vaginal swab. *M. genitalium* infection was determined by either polymerase chain reaction or transcription-mediated amplification assay.

M. genitalium was detected in 119 women (11%), of whom 5 (4%) were coinfected with gonorrhea and 7 (6%) with chlamydia, said Dr. Manhart of the University of Washington, Seattle.

Women with *M. genitalium* were significantly younger than those without (24 vs. 27 years), and significantly more likely to be black (57% vs. 35%). They had a significantly younger age at sexual debut (15 vs. 16 years), were more likely to be smokers, and were less likely to be taking oral contraceptives. There were no significant associations with sexual behaviors (other than debut) or with the time since their last sexual encounter.

The incidence of mucopurulent cervicitis was not significantly different between those with and without infection (14% vs. 9%). More than 30 polymorphonuclear neutrophils per high-magnification field were seen in 18% of the infected women and in 14% of the noninfected women—not a significant difference. Cervical mucopus was present in 4% of each group, and 11% of each group had easy cervical bleeding.

The researchers then examined the incidence of mild cervicitis in the women. "[Most] women in both groups had very low levels of polymorphonuclear neutrophils (up to 14 per high-magnification field)," Dr. Manhart said. "However, we did see a significant difference when we looked at the incidence of cloudy cervical discharge. This was present in 22% of the women with *M. genitalium* infections, but only in 12% of those without the infection."

This pattern was consistent in a multivariate analysis that adjusted for other known causes of mucopurulent cervicitis and cloudy discharge, including gonorrhea and chlamydia infections and the use of oral contraceptives, Dr. Manhart said.

After adjusting for these factors, women with mucopurulent cervicitis had a modest, but nonsignificant, 60% increased risk of the infection, compared with those without mucopurulent cervicitis. Women with cloudy cervical discharge, however, were twice as likely to have the infection as those without cloudy discharge—a significantly increased risk.

Of eight studies that have examined the association of *M. genitalium* and cervicitis, four have found a significant association, and four have not, Dr. Manhart said. "The studies that showed an association looked at populations with broad age groups, ranging from 18 years to the mid-40s, while those that showed no relationship were conducted in [younger] populations." Given the known associations of cervicitis with chlamydia infection and younger age, they investigated the impact of age on the risk of *M. genitalium* infection and cervicitis. The association went in the opposite direction of what they expected.

Although the infection was more prevalent in younger women, they were less likely than older women to show an association between *M. genitalium* and cervicitis. In women younger than 25 years, there was no significant relationship between the infection and either mucopurulent cervicitis or cloudy discharge. But women older than 25 years who had *M. genitalium* were 2.5 times more likely to have mucopurulent discharge and 2.4 times more likely to have cloudy cervical discharge than women under 25 years.

"This suggests that older women have a different immunologic response to *M. genitalium*," Dr. Manhart said, "[but] we can't draw any conclusions about causality." Dr. Manhart reported no financial disclosures related to the study.



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