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 among women older than 25 years.

The age correlation suggests a different immunologic response to the bacterium among 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 among 1,038 women aged 14-46 years who attended a public STD clinic from 2000 to 2006. *M. genitalium* infection was determined by either polymerase chain reaction or transcription-mediated amplification assay.

M. genitalium was detected in 119 women (11%). Of these, five (4%) were coinfected with gonorrhea and seven (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 current 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%). The incidence of mild cervicitis was also similar between groups. "The majority of 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," she said.

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.

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DR. MANHART

Of eight studies which have examined the association of *M. genitalium* and cervicitis, four have found a significant association, while 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 adolescent populations or among very young college students."

The researchers investigated the impact of age on the risk of *M. genitalium* infection and cervicitis. Although the infection was more prevalent among 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* than do younger women," Dr. Manhart said. "While we think these results are interesting and intriguing, we really can't draw any conclusions about causality."

Dr. Manhart reported no financial disclosures related to the study. ■