

# Consider *M. genitalium* in Cervical Inflammation

BY KATE JOHNSON

MONTREAL — *Mycoplasma genitalium* is probably an underrecognized cause of some cases of cervicitis, but the role of the physician in screening for and treating this organism remains unclear, according to Dr. Harold Wiesenfeld of Magee-Womens Hospital and the University of Pittsburgh.

Dr. Wiesenfeld outlined his work showing a link between *M. genitalium* and subclinical pelvic inflammatory disease, as well as more recent findings that implicate the organism in cervicitis, at the annual meeting of the Infectious Diseases Society for Obstetrics and Gynecology.

"Many cases, perhaps most cases, of cervicitis occur in women who are neg-

ative for the traditional pathogens known to cause cervicitis, such as *Neisseria gonorrhoeae* and *Chlamydia trachomatis*," he said in an interview. "Our findings may explain the etiology of cervicitis in some women."

His study of 524 women at risk for lower genital tract infection and undergoing testing for sexually transmitted disease found elevated polymorphonuclear leukocytes (PMNs), a microscopic marker for cervical inflammation, in 22% of the women.

*M. genitalium* was identified in 8% of the overall cohort, but occurred more frequently among those with elevated PMNs compared with those without (37% vs. 21%). In fact, among all women with elevated PMNs, *M. genitalium* was the most common pathogen "eclipsing

the more traditionally recognized cervicitis organisms," he said.

In contrast, only 32% of those with elevated PMNs had *C. trachomatis*, 22% had *N. gonorrhoeae*, 22% had bacterial vaginosis, and 21% had *Trichomonas vaginalis*.

After logistic regression, infection with *M. genitalium* was independently associated with elevated PMNs, with an odds ratio of 2.5, he said.

"As there is an independent association between *M. genitalium* and cervical inflammation, it is likely that *M. genitalium* is the cause of a true cervical infection rather than just a colonizing organism," he said. "I would not expect a colonizing organism to cause a cervical inflammatory response."

To rule out confounding STDs, the analysis was then restricted to 345 women

who had tested negative for gonorrhea, chlamydia, and *Trichomonas* species. Eight percent of this cohort tested positive for *M. genitalium*, and 46% of this group had elevated PMNs compared with the 18 women who had no STD infections.

"After controlling for age, *M. genitalium* infection was independently associated with elevated PMNs with an odds ratio of 4.7," he said.

Only a minority of women had clinical signs of cervicitis, and there were no clinical differences between those who tested positive or negative for *M. genitalium*, Dr. Wiesenfeld said.

The findings shed new light on the contributions of *M. genitalium* to cervicitis, but "at this point I do not think that these findings will change the routine management of cervicitis," he said. ■

## Hyperglycemia in Pregnancy Increases Cardiovascular Risk

BY SHERRY BOSCHERT

Pregnant women with mild glucose intolerance have a significantly increased—though still small—risk of developing cardiovascular disease later on, an analysis of data on 435,696 Canadian women suggested.

Compared with pregnant women who were thought to have normal glucose tolerance, the risk for developing cardiovascular disease during a median of 12 years after pregnancy increased by 19% in women with presumed hyperglycemia but not gestational diabetes, and by 66% in women with gestational diabetes, reported Dr. Ravi Retnakaran and Dr. Baiju R. Shah, both of the University of Toronto.

The absolute risk for cardiovascular disease increased by 0.05% to an absolute rate of 2.3/10,000 person-years in women with presumed hyperglycemia but not gestational diabetes, and by 0.16% to an absolute rate of 4.2/10,000 person-years in women with gestational diabetes, compared with a rate of 1.9/10,000 person-years in women presumed to have normal glucose tolerance.

The study was published online in the Canadian Medical Association Journal (2009 [doi:10.1503/cmaj.090569]).

The population-based cohort study followed women with no history of pregestational diabetes who gave birth between April 1994 and March 1998. The investigators did not have access to laboratory glucose values, but used the Canadian Health System's administrative database to identify three groups of pregnant women.

A "normal" group of 349,977 women had an oral glucose challenge test but received no further testing, suggesting normal results. A mild glucose intolerance group of 71,831 women had two glucose tests on the same day, and so presumably had hyperglycemia on the glucose challenge followed by a glucose tolerance test, but were excluded from having gestational diabetes based on an algorithm analogous to one used by the Ontario Diabetes Database. The third group of 13,888 women

had both tests and were thought to have gestational diabetes based on the algorithm.

The analyses adjusted for the effects of age, year of delivery, location of residence (rural vs. urban), income, comorbidity, preexisting hypertension, and gestational hypertension.

Previous studies have shown that gestational diabetes is associated with an increased risk of later cardiovascular disease. This study raises the possibility that hyperglycemia without gestational diabetes also may be associated with subsequent cardiovascular disease, the authors noted.

When the results were adjusted for the later development of diabetes, the mild gestational hyperglycemia no longer was significantly associated with an increased risk for cardiovascular disease. Given the low underlying cardiovascular risk of this young cohort and the long time generally needed to develop macrovascular disease in patients with type 2 diabetes, however, it seems most likely that vascular disease develops in parallel with diabetes instead of necessarily following it, they added.

In an editorial, Dr. J. Kennedy Cruickshank and Dr. Moulinath Banerjee, both of the University of Manchester (England), said that the findings add weight to the "common soil" hypothesis that vessel damage and hyperglycemia have a common cause (CMAJ 2009 [doi:10.1503/cmaj.091396]).

Perhaps type 2 diabetes no longer can be defined as "just" hyperglycemia, and the definition should include earlier blood vessel damage in addition to or instead of glycemia, they suggested. That might help explain what they called the failure of intensive glycemic control regimens to reduce mortality or improve cardiovascular event rates.

Dr. Cruickshank and Dr. Banerjee suggested that diabetes research focused on insulin resistance may have been misdirected, and that the next generation of diabetes treatments should focus on the blood vessel.

All of the physicians mentioned in this article declared having no conflicts of interest related to these topics. ■

## Uterosacral Nerve Ablation Of No Help for Pelvic Pain

BY MARY ANN MOON

Uterosacral nerve ablation via laparoscopy failed to improve chronic pelvic pain, dysmenorrhea, dyspareunia, and quality of life in a clinical trial four times larger than any previously published study of the issue.

Laparoscopic uterosacral nerve ablation (LUNA) using either lasers or electrodiathermy has become increasingly popular for chronic

pelvic pain, even though systematic reviews have been "inconclusive" as to its benefit. "Clinicians' beliefs about LUNA's effectiveness vary widely, and

LUNA remains a controversial procedure," said Jane Daniels of Birmingham (U.K.) Women's Hospital and her associates.

The investigators performed a randomized study of 487 women with chronic pelvic pain undergoing laparoscopy for a differential diagnosis at 18 British hospitals. Intraoperatively, the women were assigned to undergo immediate LUNA or no nerve ablation.

"The ablation was performed as close to the posterior aspect of the cervix as possible and continued for a minimum of 1 cm posterolaterally on either side with the intended aim of destroying the sensory nerve fibers and the secondary ganglia as they left the uterus and lie within the uterosacral ligaments," Ms. Daniels and her colleagues noted. "Full or partial transaction of

the ligaments was achieved bilaterally with laser or electrodiathermy, according to the surgeon's preference."

Median follow-up was 69 months. The patients assessed their pain and health-related quality of life at 3 and 6 months, and 1, 2, 3, and 5 years post procedure.

There were no differences between women who had LUNA and those who did not in terms of severity of chronic pelvic pain, dysmenorrhea, or dyspareunia at any time point, Ms. Daniels and her colleagues said (JAMA 2009;302:955-61).

There also was no difference in health-related quality of life. One year after the procedure, the two groups reported a similar number of visits to their general practitioners and a similar number of days off from work. There were eight cases of minor hemorrhaging during LUNA and one case that required conversion to an open surgery.

"LUNA was adopted by many practitioners because afferent nerves from pelvic organs pass through the uterosacral ligament, and it was thought that disruption of these would reduce the perceived pain. Lack of efficacy in our study and in prior studies provides evidence that the anatomical and physiological picture of chronic pelvic pain is more complicated."

No financial conflicts of interest were reported by the study investigators. ■

**There were no differences between those undergoing LUNA and those who did not in terms of severity of chronic pelvic pain, dysmenorrhea, or dyspareunia.**