Controversies of *M. genitalium* Urethritis Tx

BY BRUCE JANCIN

EXPERT ANALYSIS FROM THE ANNUAL CONGRESS OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

GOTHENBURG, SWEDEN – The treatment regimens currently recommended for nongonococcal urethritis and cervicitis by the Centers for Disease Control and Prevention have significant drawbacks for infections caused by *Mycoplasma genitalium*, according to Dr. Carin Anagrius.

Multiple studies – reported since the CDC guidelines were released in 2006 – indicate that *M. genitalium* is the second most common cause of nongonococcal urethritis (NGU), with a prevalence about half that of *Chlamydia trachomatis*, Dr. Anagrius said at the congress.

The first-line treatment options recommended by the CDC for NGU and presumptive treatment of cervicitis (doxycycline and azithromycin) both have problems, said Dr. Anagrius of Falu Hospital in Falun, Sweden. Doxycycline at 100 mg twice daily for 7 days has an unacceptable eradication rate for *M. genitalium,* and azithromycin in a single 1-g dose promotes emergence of macrolide-resistant organisms.

For this reason, she said, a revision of the guidelines is in order. The best solution would be to elevate azithromycin given over 5 days to preferred first-line therapy status. This regimen consists of 500 mg of azithromycin on day 1 followed by 250 mg on days 2-5. Studies found it has a 95% *M. genitalium* eradication rate and a substantially lower risk of inducing azithromycin resistance than with a single 1-g dose, she said.

An observational study by Dr. Anagrius and coworkers showed that eradication rates in symptomatic *M. genitalium* NGU in Scandinavia were about 85% for azithromycin 1 g and less than 30% for doxycycline (Sex. Transm. Infect. 2008; 84:72-6). Similar rates have been confirmed by other investigators, she noted.

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DR. ANAGRIUS

For example, University of Mississippi investigators randomized men with known *M. genitalium* urethritis at a New Orleans STD clinic to doxycycline (100 mg twice a day for 7 days) or azithromycin (1 g as a single dose). The cure rates at the first follow-up visit were 87% with azithromycin, compared with 45% with doxycycline; 47% of those who were initially cured experienced clinical relapse in the next 2-6 weeks (Clin. Infect. Dis. 2009;48:1649-54).

The latest data from large population studies suggest *M. genitalium* causes about 15% of all NGU, noted Dr. Anagrius. Since there is as no commercially available diagnostic assay for *M. genitalium* infections, for every 1,000 patients with NGU who are treated with doxycycline, roughly 84 will return with persistent symptomatic *M. genitalium* urethritis. However, if the 1,000 patients were treated with single-dose azithromycin at 1 g, only 18 would return with persistent symptomatic *M. genitalium* urethritis.

Dr. Anagrius' studies indicate roughly 70% of these unsuccessfully treated patients would as a consequence of this unsuccessful treatment develop resistance to azithromycin in the form of a single base mutation in domain V of the 23S rRNA gene. Extended azithromycin as second-line therapy is unlikely to be successful in these patients. For them the only effective second-line antimicrobials are moxifloxacin and gatifloxacin. And there is as yet no third-line therapy.

If, on the other hand, 1,000 NGU patients were treated with 1.5 g of azithromycin over 5 days, only 6 would return because of persistent *M. genitalium* urethritis, she said. Thus, the number of individuals with azithromycin-resistant *M. genitalium* infections would be reduced by two-thirds, compared with the count if azithromycin 1 g was used.

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Robotic Hysterectomy Patients: Older, Thinner

BY PATRICE WENDLING

FROM THE ANNUAL MEETING OF THE INTERNATIONAL PELVIC PAIN SOCIETY

CHICAGO – Surgeons tended to select women who were significantly older and thinner and who had a smaller uterine size for robotic total hysterectomy in a retrospective analysis of 380 women.

Women who underwent robotic total hysterectomy averaged 51 years of age, compared with 44 years among women who underwent laparoscopic total hysterectomy. They had a body mass index of 27.4 vs. 29.8 kg/m^2, and had a lower uterine weight at 144 g vs. 204 g (*P* value less than .001 for all outcomes), Dr. Liza Colimon and her colleagues reported in a poster at the meeting.

Charts were reviewed for information regarding pain levels and analgesic use among 162 women who underwent robotic total hysterectomy and 218 women who had laparoscopic total hysterectomy at three urban teaching hospitals in the Southeast in 2008-2009. All surgeries were performed by gynecologists or gynecologic oncologists for benign indications.

Women undergoing laparoscopic hysterectomy were significantly more likely to stay in the hospital longer than were those undergoing the robotic-assisted approach, said Dr. Colimon of the Florida Hospital in Orlando. Average length of stay was 1.2 days vs. 0.7 days, respectively.

Pain levels were similar in the two groups, but the incidence of patient-controlled analgesia was significantly higher in the laparoscopic group. This finding may be because the laparoscopic group had a longer hospital stay or surgeon preference, Dr. Colimon suggested. ■

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Major Finding: Women having robotic total hysterectomy were older (mean, 51 vs. 44 years), had a lower BMI (27.4 vs. 29.8), and had a lower uterine weight (144 vs. 204 g) than did women who had a laparoscopic total hysterectomy.

Data Source: Retrospective chart review of 380 women who underwent either robotic or laparoscopic total hysterectomy for benign indications.

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The impact of using azithromycin 1 g as first-line therapy for NGU is illustrated by the markedly contrasting prevalence of macrolide-resistant *M. genitalium* in Sweden and neighboring Denmark. In Sweden, where using 1 g of azithromycin to treat NGU is uncommon, Dr. Anagrius and coworkers found the prevalence of azithromycin resistance to be only 1.6% among 181 patients presenting with new confirmed *M. genitalium*.

In Denmark, where azithromycin 1 g is widely prescribed as first-line therapy, Dr. Anagrius' Danish collaborators found a 40% prevalence of macrolide resistance in 415 patients presenting with new confirmed *M. genitalium* urethritis.

Dr. Anagrius noted that discussion about screening for *M. genitalium* infection in asymptomatic individuals in high-prevalence settings is starting to occur among venereologists and public health officials. The problem is the lack of a commercial polymerase chain reaction assay, which must be a high developmental priority. In the meantime, Dr. Anagrius urged physicians to "think *M. genitalium*" in patients with repeated urinary tract infections, abnormal bleeding, lower abdominal pain, persistent discharge, epididymitis, prostatitis, and what is often labeled treatment-resistant candidiasis.

And since *M. genitalium* NGU and cervicitis are sexually transmitted infections, optimal care includes treatment of the patient's partner or partners, she stressed.

Dr. Anagrius disclosed having no financial conflicts. ■