

Conclusions Both study regimens were highly effective. Gastrointestinal AEs, especially nausea and diarrhoea, were common. These results provide alternative gonorrhoea treatment options for patients who cannot be treated with cephalosporins.

S08.2 IS AZITHROMYCIN THE BEST TREATMENT FOR CHLAMYDIA?

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Azithromycin has been widely used for many years as first-line therapy for chlamydial infection (or as equal first-line with doxycycline). However, there are now several reasons to reconsider its position.

Firstly, although earlier trials showed azithromycin to have cure rates which were high and equivalent to those of doxycycline, more recent studies have found it to have lower, and inadequate, levels of success in women with cervical infection, men with urethral infection, and for rectal infection in both men and women.

Secondly, the increasing recognition of the importance of *Mycoplasma genitalium* as a pathogen, especially as an important cause of urethritis in men. In the absence of a readily available test for *M. genitalium*, men with non-gonococcal urethritis are often treated with a single dose of azithromycin, which is known to be a less effective treatment for *M. genitalium* than is doxycycline. As a result many such men have persistent symptoms following such treatment, requiring repeat visits and further antibiotic therapy. Their sexual partners may also require further treatment. Additionally, there is evidence that single-dose azithromycin therapy (as against longer courses) can induce resistance in *M. genitalium*.

Thirdly, the widespread use of azithromycin is probably leading to increasing resistance to this agent in other infections where it has a place; especially in gonorrhoea where it is now widely recommended as an adjunct to ceftriaxone in the belief that this will reduce the likelihood of resistance to ceftriaxone developing, but also in the treatment of syphilis where azithromycin has a role as a second-line agent e.g. in cases of allergy to penicillins.

S08.3 MYCOPLASMA GENITALIUM AND CHLAMYDIA TRACHOMATIS IN LAPAROSCOPICALLY DIAGNOSED PELVIC INFLAMMATORY DISEASE

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Introduction Pelvic inflammatory disease (PID) is a well known complication of infection with *Chlamydia trachomatis* (*C. trachomatis*). The knowledge of *Mycoplasma genitalium* (*M. genitalium*) and its role in PID is relatively limited. In this study we report on the proportions of *C. trachomatis* and *M. genitalium* attributable to PID from an ongoing study of laparoscopically diagnosed cases of PID.

Method Women seeking care at the emergency service at the Department of Obstetrics and Gynaecology at Malmö University Hospital in Sweden from 2004 through the mid of 2012 with clinically suspected PID, who underwent diagnostic laparoscopy, were eligible. Specimens from the cervix/and or vagina together with abdominal fluid were collected and analysed for pathogens such as *C. trachomatis* and *M. genitalium*.

Results In all, 208 women were included and 123 (59.1%) were diagnosed with PID at laparoscopy. *C. trachomatis* was present in cervix and/or abdominal fluid in 29/123 (23.6%) of these cases. *M. genitalium* was present in cervix and/or abdominal fluid in 5/123 (4.1%) cases of PID. In three of these cases *M. genitalium* was positive only in cervix and there was a dual infection with *C. trachomatis* positive in the abdominal fluid. Two PID cases were *M. genitalium*

positive only, (2/123, 1.6%). A significantly declining trend for *C. trachomatis* PID was observed (42.8% - 11.5% $p = < 0.001$). The prevalence of *C. trachomatis* and *M. genitalium* was 2.8% and 2.1% respectively in 5519 women tested from 2003 to 2008 in the same clinic.

Conclusion The over all proportion of PID attributable to *C. trachomatis* was 23.6% but over the study period a significantly declining trend was seen. The proportion of PID attributable to *M. genitalium* (1.6%) was significantly lower considering the prevalence to be in the same range as for *C. trachomatis*, suggesting that *M. genitalium* was a less aggressive pathogen in terms of clinical manifestations of PID.

S08.4 MYCOPLASMA GENITALIUM: IMPLICATIONS FOR DISEASE, TREATMENT AND THE PUBLIC HEALTH

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M. genitalium is an established cause of sexually transmitted urethritis and cervicitis, and may cause upper tract disease in women. Detection by nucleic acid amplification tests is currently the only diagnostic method available, but no FDA approved assays are currently available, and the CE marked tests suffer from limited clinical evaluation.

In most settings, *M. genitalium* infections explain 15–25% of symptomatic non-gonococcal urethritis, but as diagnosis of the infection is not routinely carried out, treatment will usually be syndromic. However, only a few randomised trials have evaluated treatment of *M. genitalium*, and compared only doxycycline 200 mg daily for 7 days with a 1 g single dose of azithromycin. Together with results from open trials, it is obvious that doxycycline is inefficient in eradicating *M. genitalium* showing eradication rates around 35%. The eradication rate after azithromycin 1 g single dose is significantly better, but differs greatly between studies. Thus, older studies appear to have higher eradication rates than recent ones and a lower eradication rate is reported in studies from centres where azithromycin has been used as the primary treatment for chlamydial and idiopathic urethritis and cervicitis.

At present, the only second line antibiotic that has been shown to have a high activity against macrolide resistant *M. genitalium* is moxifloxacin. However, this drug is significantly more expensive and has a less favourable safety profile than macrolides, and multi-drug resistant infections have emerged, primarily in patients with contact to South East Asia. Consequently, there is an urgent need for clinical trials with possible alternative drugs. Such trials should preferably also address the treatment efficacy in chlamydial and idiopathic urethritis and cervicitis as a single treatment covering these conditions would be advantageous.

S.09 - Molecular mechanisms of antimicrobial resistance

S09.1 MOLECULAR DETECTION OF ANTIMICROBIAL RESISTANCE IN STI PATHOGENS

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