Therapy for Gonococcal and Non-gonococcal Genital Infections is a Major Problem for Clinicians

Gonococcal and non-gonococcal genital infections are major public health concerns worldwide, with significant morbidity and socioeconomic costs. Neisseria gonorrhoeae (NG) has developed resistance to most antibiotics, and the susceptibility of NG infections to current therapeutic regimens is decreasing. Chlamydia trachomatis (CT) has not yet shown any resistance to first-line antibiotics, i.e. doxycycline and azithromycin. However, the cure rate of CT infections with singledose azithromycin, 1 g stat (i.e. given immediately), has been suboptimal (< 95%) in several recent studies. It has been hypothesized that insufficient duration of exposure to azithromycin or suboptimal adsorption of azithromycin in some patients results in these clinical failures. On the other hand, doxycycline has a poor treatment efficacy on Mycoplasma genitalium (MG), which, together with CT, are the most frequent aetiologies of non-gonococcal urethritis (NGU). Furthermore, the cure rate of MG infections with azithromycin 1 g has decreased significantly during the recent decade due to the emergence of resistance. Few clinical randomized controlled trials (RCTs) have been completed and many controversies exist, especially regarding the ideal treatment for MG infections.

The possibility of the same therapeutic schedule for the treatment of both CT and MG could offer great advantages for clinicians and patients because: (i) the rate of co-infection with CT and MG is significant; (ii) in many settings a therapeutic decision is made on a clinical basis alone and should be as simple and comprehensive as possible; and (iii) when microbiological diagnosis is possible, empirical first-line treatment is most frequently offered at the first visit.

The paper by Magnus Unemo and Harald Moi in this issue of Acta Dermato-Venereologica (pp. 730–732), adds important new information regarding the treatment of MG and CT infections. The authors are major experts (together with Jorgen Skov Jensen, who reviewed the paper) in the field of gonococcal urethritis (GU) and NGU infections. Their paper presents the first data to show that a 5-day treatment regimen with azithromycin (500 mg on the first day, 250 mg on the following 4 days) used for MG in several countries also effectively eradicates CT (eradication rate of uncomplicated urogenital infection: 98.8% (79/80)). The paper includes a large number of MG cases and dual MG and CT cases, with detailed and accurate analysis of the results.

The demonstration of the efficacy of a 5-day regimen with azithromycin for both infections, even at a preliminary stage, is crucial for the development of new guidelines, and offers clinicians a treatment schedule with good efficacy and tolerability.

This paper represents a foundation stone in the construction of treatment guidelines with robust evidence. The rapid evolution of antimicrobial resistance in GU and NGU makes monitoring of resistance essential. RCTs involving different drugs should be implemented.

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