CLINICAL FEATURES OF *MYCOPLASMA GENITALIUM* ASSOCIATED PELVIC INFLAMMATORY DISEASE AND RESPONSE TO MOXIFLOXACIN: A CASE SERIES

Authors:
Latimer RL[1], Read TRH[1-2],Vodstrcil LA[1-2],Goller JL[3], Fairley CK[1-2], Ong JJ[1,2,4], Hocking JS[3], Bradshaw CS[1-2]

[1]Central Clinical School, Monash University, Melbourne, Australia
[2] Melbourne Sexual Health Centre, Alfred Health, Melbourne, Australia
[3] Centre for Epidemiology and Biostatistics, Melbourne School of Population & Global Health, University of Melbourne, Parkville, Victoria, 3010, Australia
[4] London School of Hygiene and Tropical Medicine, London, United Kingdom

Introduction:
There are limited published data describing the clinical features and therapeutic response in women meeting criteria for presumptive treatment for pelvic inflammatory disease associated with Mycoplasma genitalium (henceforth MG-PID). MG-PID has been reported to respond poorly to standard PID treatment regimens and while moxifloxacin is recommended in several treatment guidelines, published data to support its use are scant.

Methods:
We conducted a retrospective study of women at Melbourne Sexual Health Centre (MSHC) between 2006-2017, who met the CDC criteria for presumptive treatment of PID, and had MG detected as the sole pathogen. Clinical and laboratory characteristics of MG-PID were compared to cases of chlamydial PID (CT-PID) by multivariable analysis. Microbiological and clinical cure following moxifloxacin and standard PID treatment was determined for women with MG-PID who returned for test of cure between 14-120 days.

Results:
Ninety-two patients with MG-PID were compared with 92 women with CT-PID. MG-PID was associated with increased lower abdominal tenderness [Adjusted Odds Ratio (AOR)=2.29 (95%CIs 1.14-4.60)], but a lesser vaginal polymorphonuclear (PMN) response compared to CT-PID by multivariable analysis. Of the 92 women with MG-PID, 54/92 (59%) received moxifloxacin (duration 10-14 days) and 37/54 returned a test of cure between 14-120 days after treatment– 27/37(73%) cases had a median of 7 days of a standard PID regimen containing doxycycline and metronidazole +/- azithromycin prior to commencing moxifloxacin. Microbial and clinical cure following moxifloxacin was 95% (95%CI 82-99) and 89% (95% CI 75-97), respectively.

Conclusion:
Women meeting CDC criteria for presumptive treatment of MG-PID did not significantly differ to those with CT-PID. MG-PID was associated with more abdominal tenderness but less of a vaginal PMN inflammatory response than CT-PID. Moxifloxacin, often commenced after standard PID treatment, achieved high

microbiological cure (95%), in the context of emergence of quinolone resistance and high level macrolide resistance in Australia.

Disclosure of Interest Statement:
Melbourne Sexual Health Centre receives funding from SpeeDx Pty Ltd (Australia) for research projects on M. genitalium, however no funding was received or used to support this project. This was an unfunded study. RLL is supported by an Australian Government Research Training Program (RTP) Scholarship. TRHR is supported by NHMRC early career fellowship no.1091536. JSH is supported by NHMRC senior research fellowship no.1042907.