

Abstract -ASHM

MYCOPLASMA GENITALIUM – IS TREATMENT WORSE THAN CURE: MINOCYCLINE INDUCED SERUM SICKNESS-LIKE REACTION: A CASE REPORT

Rachel Burdon¹, Catherine Yu¹, Lisa Horgan^{1,2} David Templeton^{1,2}

¹ Royal Prince Alfred Hospital, Sydney, Australia

² University of Sydney, Sydney, Australia

Background: Mycoplasma Genitalium (MG) infection poses a management challenge due to diagnostic challenges, variance in pathogenicity, increasing antimicrobial resistance and drug shortages. Drug reactions to the 'tetracycline' class of drugs, the mainstay of MG treatment, include serum sickness like reaction (SSLR). Classically SSLR presents with rash, fever, and polyarthralgia or polyarthritis. Unlike serum sickness, which is immune-complex mediated, the pathogenesis of SSLRs remains unclear and poorly documented. The pattern of cross-reactivity within the tetracycline class is relatively undescribed.

Approach: A 30-year-old man presented with ongoing symptomatic urethritis with treatment resistant MG infection after failing doxycycline and moxifloxacin treatment. He was prescribed 7 days of doxycycline followed by 14 days of minocycline. He developed fever, tachycardia, severe urticarial rash, and symmetrical polyarthritis 14 days after initiating minocycline. Biopsy of a lower limb macular rash demonstrated a leukocytoclastic vasculitis. Symptoms responded to 5-days of oral prednisolone, loratadine, and promethazine. He was referred to the RPA immunology drug allergy clinic.

Impact: Differential diagnosis included minocycline induced serum sickness, SSLR and drug-induced lupus. A diagnosis of Minocycline induced SSLR was made given the clinical features, latency, and duration of his presentation. He subsequently had ongoing symptomatic *M. genitalium* infection, resistant to other drug classes. Following risk benefit analysis and consent he received remotely supervised doxycycline rechallenge followed by Sitaflaxacin. A full course of doxycycline was tolerated without evidence of immediate or delayed hypersensitivity. Lifetime avoidance of minocycline was recommended.

Significance: This case highlights the complexity of managing treatment resistance MG. This patient experienced a serious drug reaction associated with MG treatment and has subsequently reported persisting urethral symptoms, sexual dysfunction and poor mental health. It also highlights that minocycline-induced SSLR cross may not be an absolute contraindication to use of other drugs within the tetracycline class.