# EFFICACY AND TOLERABILITY OF COMBINATION MINOCYCLINE AND METRONIDAZOLE FOR TREATMENT OF *M. GENITALIUM*

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**Background:**
High levels of macrolide resistance and increasing fluoroquinolone resistance are making *Mycoplasma genitalium* infections increasingly difficult to treat. We published data to show that minocycline monotherapy cures 68% of macrolide resistant *M. genitalium* infections. Recent *in vitro* data indicated that metronidazole may have activity against *M. genitaliu*m. Therefore, we hypothesised that metronidazole combined with minocycline may be more effective than minocycline monotherapy and serves as an alternative treatment for patients with macrolide-resistant *M. genitalium* infections with fluoroquinolone contraindications or resistance.

**Methods:**
We evaluated the efficacy and tolerability of combined minocycline 100mg BD and metronidazole 400mg BD for 14 days for patients attending the Melbourne Sexual Health Centre from September 2021. Microbial cure was defined as a negative test-of-cure within 14-90 days after completing therapy. We calculated the proportion cured with 95% confidence intervals (CI) and assessed adherence and adverse effects.

**Results:**
Data from 74 patients with macrolide-resistant *M. genitalium* who received 14 days of combined minocycline and metronidazole were analysed; 59 (79.73%, [95% CI 68.78 - 88.19%]) experienced microbial cure within 14-90 days of completion. Adherence was high; 65 of 71(92%) cases reported taking all doses. Overall, (39/70, 56%) reported one or more adverse effects that include dizziness (14/70,20%), headache (13/70,19%), lethargy (12/70,17%), diarrhoea (9/70,13%), mood changes (8/70,11%), vomiting (5/70,7%), photosensitivity (6/70,4%), abdominal pain (3/70,4%), insomnia (3/70,4%), or another adverse effect (11/70, 16%). Six reported ceasing treatment due to the reported adverse effects. A larger dataset will be available in September 2024.

**Conclusion:**
Combination minocycline and metronidazole cured 80% of macrolide-resistant *M. genitalium* infections. While this regimen appears to have higher efficacy than minocycline alone (80% vs 68%), a significant proportion of cases reported adverse effects. With increasing fluoroquinolone resistance, and a need for non-quinolone alternatives, combination minocycline and metronidazole may represent an effective option for treating *M. genitalium.*

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