Does pristinamycin or sitafloxacin do the trick?

Treatment outcomes in people with macrolide-resistant mycoplasma genitalium who have failed first-line therapy

Anderson I[1], *Varma R*[1,2]

1. Sydney Sexual Health Centre, South-Eastern Sydney Local Health District 2. The Kirby Institute, Sexual Health Program, University of New South Wales

Background

Treatment of Mycoplasma genitalium (Mgen) is complicated by resistance to macrolides and fluroquinolones.

In the absence of fluroquinolone resistance assays, a significant minority of clients fail first-line sequential treatment with doxycycline and moxifloxacin. Guidelines recommend sequential doxycycline and pristinamycin or sitafloxacin as second line. Elsewhere, pristinamycin-based regimens have achieved 75% cure rate (95% CI 66%–82%)[1].

We looked at treatment outcomes of second-line therapy of Mgen in a sexual health clinic in Sydney, which receives community referrals and where testing was indicated for clients with STI syndromes and sexual contacts.

Why is looking at Mgen treatment important?

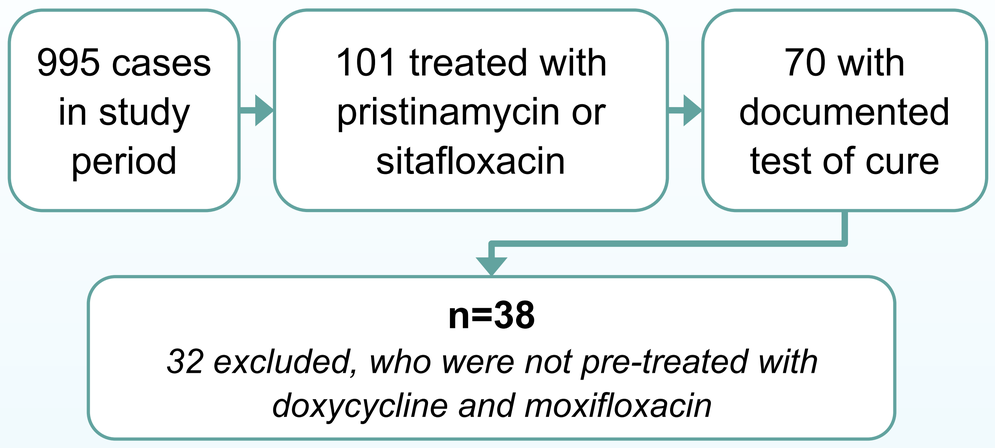
- Mgen is the culprit in NGU in up to 35% of cases [2,3]
- Australian MSM have more macrolide-resistance than in the general population (76% vs 39%)[4]
- 16% of Australian Mgen have dual-class resistance (macrolide [azithromycin] + fluroquinolone [moxifloxacin])[5]

Methods

- Retrospective case series of pristinamycin and sitafloxacin use for macrolide-resistant Mgen
- Study period: May 2017 – May 2021
- Analysed using descriptive statistics and Fisher's exact test with $p \leq 0.05$

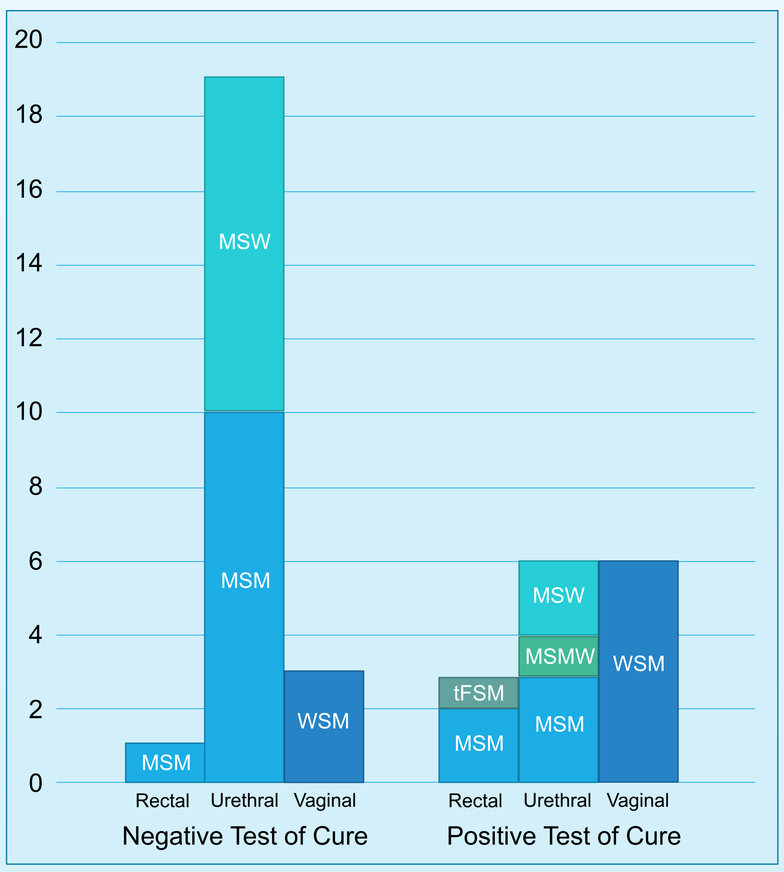
Inclusion Criteria

1. diagnosis with macrolide-resistant Mgen infection
2. treatment with pristinamycin or sitafloxacin at SSHC
3. documented test of cure
4. initial treatment with doxycycline and moxifloxacin



Results

Test of cure by site and sexual behaviour



	n=38		Test of cure result (% of n) Negative		Positive	
	n	%	n	%	n	%
Total	**38**	**100%**	**23**	**61%**	**15**	**39%**
Treatment Drug						
Pristinamycin	31	82%	20	65%	11	35%
Sitafloxacin	7	18%	3	43%	4	57%
Gender						
Female	9	24%	3	33%	6	67%
Trans Female	1	3%	0	0%	1	100%
Male	28	74%	20	71%	8	29%
Site (Symptoms at TOC)						
Rectal	**4**	**11%**	**1**	**25%**	**3**	**75%**
No	3	8%	1	33%	2	67%
Yes	1	3%	0	0%	1	100%
Urethral	**25**	**66%**	**19**	**76%**	**6**	**24%**
No	20	53%	16	80%	4	20%
Unknown	1	3%	0	0%	1	100%
Yes	4	11%	3	75%	1	25%
Vaginal	**9**	**24%**	**3**	**33%**	**6**	**67%**
No	4	11%	3	75%	1	25%
Yes	5	13%	0	0%	5	100%

Significance	
	p-value
Pristinamycin vs sitafloxacin	0.401
Cis male vs Non-cis male	**0.030**
Urethral vs non-urethral	**0.013**
MSM vs non-MSM	0.506
Symptomatic vs non-symptomatic at TOC	**0.023**

Conclusion

Gender, site of infection, and symptoms could guide clinicians when counselling clients on therapeutic effectiveness when they present for second-line M. gen treatment. Larger, prospective multi-centre studies that specifically examine treatment differences between urethritis and vaginitis/cervicitis are required.

Key Messages

- No difference between pristinamycin and sitafloxacin as second-line drug
- Cis males with urethral infection cured more readily
- Sexual behaviour does not matter, in a cohort of people with macrolide-resistant Mgen
- Symptoms at TOC are likely to indicate ongoing infection

References

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SSHC SYDNEY SEXUAL HEALTH CENTRE

NSW GOVERNMENT Health South Eastern Sydney Local Health District

Contact
Ian Anderson (he/him)
Sydney Sexual Health Centre
Ian.Anderson1@health.nsw.gov.au

8 Macquarie Street
Sydney NSW 2000
(02) 9382 7440
www.sshc.org.au