Dequalinium chloride vaginal tablets for recalcitrant *Trichomonas vaginalis* (TV): A Case Report

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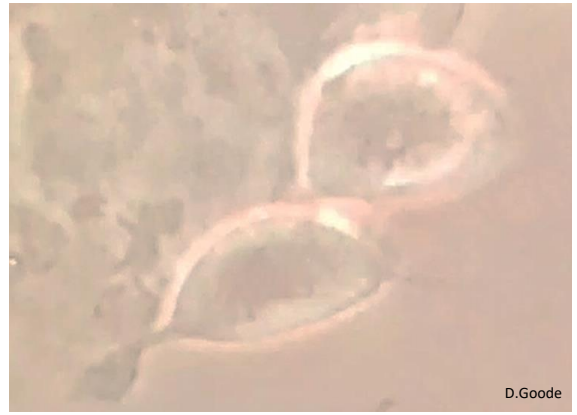
Disclosures

- None

Presentation

- 18 year old white British female nursing student
- Attended GP with increased vaginal discharge and itching in October 2017
- 1 RMP of 3 years. He travelled to and from Dubai.
  - No further sexual contact after initial diagnosis of TV.
- Past Medical History:
  - obesity (153kg, 1.7m, BMI >45)
- No regular medication, no contraception.
- No known drug allergies



Management

Date	Treatment	Duration	Symptoms/ Diagnostics
October 2017	Metronidazole 400mg BD	7 days	Improved whilst on treatment
February 2018	Metronidazole 400mg BD	7 days	NAAT and microscopy positive
March 2018	Tinidazole 2g OD	7 days	No improvement in symptoms
March 2018	Tinidazole 2g BD	6 days	Planned 14 days- unable to tolerate
April 2018	Tinidazole 1g TDS, Amoxicillin 500mg TDS, clotrimazole 500mg PV OD	14 days	Symptoms settled, but returned within 48 hours of course completion
June 2018	Metronidazole 500mg TDS IV Metronidazole intravaginal gel 0.75% x2/night	14 days	Symptoms improve while on treatment, 2 weeks later symptoms return and microscopy positive

Guideline Suggestions

- Resistance testing- Not available in UK
  - CDC only: practicalities of transporting sample, cost implications
  - Mutations and frequency of resistance

- Therapeutic drug monitoring- Not available in UK
  - Interpretation; how does TDM relate to required MIC?
  - Metronidazole has excellent bioavailabilty
  - Body weight not thought to be a factor
  - Vaginal levels should be similar to serum levels

Options

- BASHH Guidelines
  - Paromomycin intravaginally 250mg once or twice daily for
  - Furazolidone intravaginally 100mg twice daily for 12-14 d
  - Acetarsol pessaries 500mg nocte for 2 weeks
  - 6% Nonoxynol–9 pessaries nightly for 2 weeks

- Other suggestions from consultant body
  - Metronidazole 2g daily for 4 weeks with dequalinium chloride tablets

Dequalinium Chloride Vaginal Tablet

- Quaternary Ammonium compound
- Anti-infective and antiseptic agent
- Bactericidal, fungicidal and anti-protozoal – causes an increase in cell permeability and the subsequent loss of enzyme activity, finally resulting in cell death.

- Common side-effects include VVC, vaginal discharge, vulvovaginal pruritis and burning sensation

- Some evidence in TV
- Several small studies, with efficacy between 3-90%,although intra-study inconsistency with treatment duration

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July 2018	Metronidazole 2g OD Dequalinium chloride 10mg vaginal tablets od	28 days 42 days	Asymptomatic whilst on treatment TV present but 'sluggish'
August 2018	Dequalinium chloride 10mg vaginal tablets		For symptom control while other options explored

Secnidazole (Solosec)

- 5-nitroimidazole
- Half-life 17 hours (metronidazole 8.5 hours)
- US license for treatment of BV- stat dose of 2g PO
- TV requires a lower MIC in vitro, compared to metronidazole

Relative Costs

Treatment	Duration	Cost
Metronidazole 400mg BD	7 days	£4
Tinidazole 2g OD	7 days	£11
Tinidazole 2g BD	14 days	£22
Tinidazole 1g TDS, Amoxicillin 500mg TDS, clotrimazole 500mg PV OD	14 days	£80
Metronidazole 500mg TDS IV Metronidazole intravaginal gel 0.75% x2/night	14 days	£1833 (cost of medication only)
Metronidazole 2g OD Dequalinium chloride 10mg vaginal tablets OD	28 days 42 days	£28 £49
Dequalinium Chloride 10mg vaginal tablets OD	22 weeks	£180
Secnidazole (Solosec) 2g PO OD	7 days	£2415 (plus delivery/importing charges from USA)

Conclusion

- This case of presumed metronidazole resistant TV was treated with 22 weeks of dequalinium
- Prolonged dequalinium offers a relatively cheap and safe alternative treatment option for recalcitrant TV, particularly where high dose systemic antibiotics have been unsuccessful.

References

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