GENITAL TRICHOMONAS VAGINALIS IS RARE AMONG FEMALE ATTENDEES AT A SYDNEY METROPOLITAN SEXUAL HEALTH CLINIC

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Background

Trichomonas vaginalis (TV) is the most common non-viral sexually transmitted infection worldwide, however, it is not a notifiable infection in Australia.

Among Australian women, reported NAAT-diagnosed prevalence varies widely (0.38%-8.4%).

TV is associated with pelvic inflammatory disease, preterm delivery and an elevated risk of HIV transmission.

In women, more than half (50-80%) of the TV infections are asymptomatic.

Nucleic acid amplification tests (NAAT) are more sensitive than wet-film and are the optimal diagnostic method in developed countries.

Aim

To assess whether routine NAAT testing for genital TV in females is indicated in an urban Australian setting.

Methods

Cross-sectional study of female attendees at RPA Sexual Health, a publically-funded sexual health clinic in Sydney, from July 2013 to February 2014.

First void urine or endocervical specimens tested for Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG) were eligible for TV testing.

Testing was performed by transcription-mediated amplification using the Aptima Trichomonas vaginalis assay (Hologic Inc., United States).

Characteristics of women tested and not tested for TV were extracted from the clinic database and compared by Chi-squared test.

Approval was obtained from the SLHD Ethics Review Committee (RPAH Zone).

Results

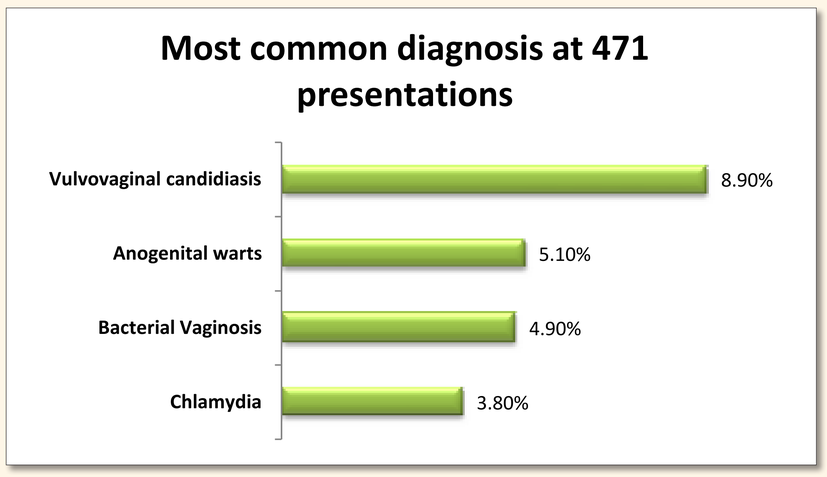
393 women tested for CT/NG at 471 presentations.

347 TV tests performed at almost three-quarters (73.7%) of presentations.

Among all presentations, almost half (n=224, 47.6%) complained of genital symptoms.

There were no significant differences between women who had (n=294), and did not have (n=99), a TV test during the study period, except that women who had recent overseas sexual contact were less likely to be tested (Table 1).

Of the 347 tests, two TV infections were diagnosed, a positivity rate of 0.6% (95% CI 0.07-2.1%).



Both TV cases were Australian-born with a history of injecting drug use in the past 12 months, neither were sex workers and one identified as Aboriginal. One presented with post-coital bleeding, and TV was identified on wet film. The other reported pelvic symptoms, but was tested on outreach and no wet film microscopy was performed. Neither had concurrent CT/NG infections detected or clinical cervicitis diagnosed on examination.

Table 1: Demographic and behavioural characteristics of 393 women attending RPA Sexual Health during the study period

	TV test n (%)	no TV test n (%)	P value
Total women	294 (74.8%)	99 (25.2%)	
Age (median,years)	27 (range 16-62)	28 (range 16-61)	0.112
Born in Australia	155 (52.7%)	59 (59.6%)	0.235
Aboriginal or Torres Strait Islander	8 (2.7%)	2 (2.0%)	0.702
Culturally and linguistically diverse background	66 (22.4%)	18 (18.2%)	0.370
Language other than English preferred	15 (5.1%)	2 (2.0%)	0.192
Sex work in past 12 months	64 (21.8%)	15 (15.2%)	0.155
Injecting drug use in past 12 months	24 (13.6%)	9 (9.1%)	0.773
Sexual contact with women in past 12 months	42 (14.3%)	10 (10.1%)	0.302
Sex overseas in past 12 months	40 (13.6%)	27 (27.3%)	0.002

Discussion

We found a low overall TV positivity rate among asymptomatic women.

Our positivity rate is similar to the NAAT-detected TV prevalence reported previously at another sexual health clinic in Sydney, but substantially lower than the 4.8% prevalence found in another Sydney-based study. This may reflect the use of a different in-house NAAT in that study, and their inclusion criterion of clinical cervicitis.

TV infection in men is not commonly associated with adverse clinical outcomes[1]; therefore men were not included in this study.

There were a number of limitation: small number of TV infections precluding analysis of demographic and behavioral associations, eligible specimens identified by the laboratory and staff changes during the study period resulted in a quarter of CT/NG specimens not being tested for TV.

Women reporting recent overseas sexual contact were less likely to be tested and since many overseas countries have a higher TV prevalence than Australia, TV positivity could have been underestimated.

The findings are unlikely to be generalisable to rural and remote Australian settings, where TV prevalence is higher, and disproportionately affects Aboriginal communities.

Conclusions

Intermittent surveillance of TV prevalence at sexual health clinics may be useful to identify trends and monitor disease burden in Australian community settings.

Our findings are in accord with those from previous urban Australian studies and do not support routine TV testing among asymptomatic female sexual health clinic attendees in metropolitan Sydney.

Disclosure of Interest Statement

Aptima *Trichomonas vaginalis* assay testing kits were provided free by Hologic (Australia) Pty Ltd.

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