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Laboratory detection of pathogens in patients with infectious cervicitis in a tertiary care hospital: A cross-sectional, descriptive study from north India

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Background

Cervical discharge as a clinical presentation of cervicitis is a significant cause of morbidity among sexually active women worldwide. If undiagnosed, it can lead to tubal infertility, ectopic pregnancy and chronic pelvic pain as consequences.

Aim/Methods

Considering the changing pattern of etiological agents of cervicitis, this study was done to analyze the causative pathogens associated with cervicitis. This cross-sectional, descriptive study was done over a period of 18 months from 1 January 2021 to 30 June 2022. A total of 171 females diagnosed with infectious cervicitis were recruited. Real-time polymerase chain reaction (PCR) was performed on endocervical swabs for various viral and bacterial agents.

Results

The mean age of patients recorded was 32.8 years. Out of 171 patients, the commonest infectious etiology found on PCR was *Ureaplasma* species in 137 (80.11%) patients; including *Ureaplasma parvum* in 101 (59.06%) and *Ureaplasma urealyticum* in 36 (21.05%); followed by *Neisseria gonorrhoeae* in 52 (30.40%) patients. PCR was positive for *Trichomonas vaginalis* in 17 (9.9%) and *Chlamydia trachomatis* in 2 (1.16%) patients. While PCR for *Mycoplasma hominis* came positive in 41 (23.97%) patients, none of the patient showed positivity for *Mycoplasma genitalium*. Coinfection was seen in 62 (36.25%) patients; with 2, 3 and 4 organisms seen in 49 (28.65%), 12 (7%), and 1 patient respectively; with the majority (30 patients, 17.5%)

showing *Ureaplasma parvus* and *Neisseria gonorrhoeae* coinfection.

Conclusions

We conclude that there is a changing etiological pattern of infectious cervicitis. *Ureaplasma* species was the most common infectious etiology of cervicitis in our study. Laboratory tests are needed that can test a wide array of organisms, and this study emphasizes on the use of PCR, that has increased early detection rate, reinforcing early and targeted treatment.

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