

DETECTION OF TRICHOMONAL DNA USING REAL TIME PCR ASSAY VERSUS CULTURE

Thesis

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ABSTRACT

Trichomoniasis occurs worldwide with adverse health consequences. This cross sectional study was conducted to evaluate the diagnostic yield of real time PCR test and conventional Parasitological tests using microscopy, Giemsa staining in diagnosis of vaginal trichomoniasis versus parasite culture.

The study aims extended to determine the prevalence of *T. vaginalis* infection among 300 symptomatic women attending Obstetrics and Gynecology outpatient clinic of Kasr Al-Ainy hospital, Kasr Al-Ainy School of Medicine, Cairo University between May 2011 and October 2011.

T. vaginalis prevalence was 23% among the participating women using culture method as a golden standard.

Microscopy and Giemsa stain were of perfect specificity but couldn't be used as a single diagnostic test because of low sensitivity (24.3% and 48.6% respectively).

Real time PCR assay had the highest diagnostic yield in detection of *T. vaginalis* infection. Its sensitivity, specificity and PPV were 92%, 100% and 100%. Its result is almost perfect as culture by κ agreement. It can be used as an adequate and rapid method for diagnosis of *T. vaginalis* infection.

T. vaginalis was significantly detected and positively associated with using contraception, malodour, vaginal itching, grey and yellow vaginal discharge and cervical redness which making them a disease predictors.

Key words: *T.vaginalis*, Microscopy, Giemsa stain, Culture, Real time PCR