Abstract

Trichomoniasis is a common sexually transmitted disease caused by the flagellated protozoan parasite *T. vaginalis*. It is a major health problem worldwide. The World Health Organization (WHO) has estimated that 180 million infections are acquired annually worldwide.

Vaginal cotton swab specimens were obtained from 1207 women visiting the clinics. Culture was performed with the trichomonas medium No.2 immediatly after specimen collection. The cultures were examined daily using a light microscope to detect the presence of *T. vaginalis*. Polymerase chain reaction (PCR) was performed on 100 samples selected randomly from positive cultures. The primer set chosen for the PCR amplification was designed to target a well-conserved region in the beta-tubulin genes of *T. vaginalis*.

The infection rate of *T. vaginalis* was found to be 164 out of the 1207 patients tested (13.6%) by culture. Further testing of culture positive samples by PCR, showed that out of 100 samples only 82 samples were found positive by PCR.

Statistical analysis did not show any significant difference between the rates of *T. vaginalis* infections in women when several conditions were

compared. These conditions were occupation, educational level, economic status and marital status, while women aged between 15-18 years showed highest rate of infection (22.7%) as compared to other age groups tested without any statistically significance.

A significant statistical difference was apparent when pregnancy was compared to other conditions. The infection rate was actually the highest among pregnant women (28.1%), while the infection rate of *T. vaginalis* was found to be (11.4%) in lactating women. It was evident that trichomoniasis was drastically reduced in women whose husbands use condoms (8.6%).

In conclusion, this is the first study to be conducted on one of the most common sexually transmitted diseases in Palestine, trichomoniasis. The infection rate was found to be 13.6% which is mainly obtained from examining normal women attending reproductive health clinics.