

EFFECT OF CONTRACEPTIVES ON TRICHOMONIASIS

Thesis

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SUMMARY

T. vaginalis infection is a common sexually transmitted protozoal infection and is associated with several adverse health outcomes. The present study was designed to find out the relationship between different contraceptive methods usage and the risk of vaginal trichomoniasis.

Vaginal swab specimens were obtained from 126 married women attending at FPCs in EL-Fayoum Governorate – Egypt. A detailed clinical history and a thorough examination of all the cases were done. Diagnosing vaginal trichomoniasis were done by wet mount microscopy, Geimsa staining and culture on modified Diamond's medium.

In the current work, the women ages ranged from 17 to 44 years old. The mean women age was 29.2 ± 6.3 years old. The majority of women (57.1%) had residence in rural areas and housewives (81%). The educational level ranged from illiteracy to high collage. Forty women (31.7%) had no basic literacy. Sixty one women (48.4%) had educational level with more than 8 years of schooling. Only fourteen women (11.1%) had diabetes mellitus. Out of 126 women, fifteen women reported with regular usage of vaginal douching.

Regarding the contraceptive methods usage, sixty women (47.6%) were current users of intra-uterine devices (IUDs), 22 (17.5%) were progestin injectable users and 20 (15.9%) women were using the combined type of oral contraceptive pills (OCPs). The control (non users) group were 24(19.1%) women.

The symptoms reported by the examined women include: (58.7%) increased vaginal discharge, (41.3%) genital malodour and itching. While (23%) women were presented with dyspareunia, (28.6%) presented with dysuria and (33.3%) with lower abdominal pain. Regarding the clinical signs, a great majority of women had either yellow or white discharge for which

percentages were 47.6% and 46 % respectively. About (63.5 %) of the examined females had watery discharge. Thirty two women (25.4%) had thick creamy discharge. Fourteen women had frothy discharge. Nine women had red cervical spotting. The increased vaginal discharge (either yellow or gray), vaginal itching and malodour were the commonest presenting symptoms among IUD users. While dysuria, lower abdominal pain and white watery discharges were predominated among users of hormonal contraception methods (OCPs and injectable).

The results of the present study showed increasing vaginal trichomoniasis among women using the IUDs for contraception irrespective to the duration of usage. The highest pH of the vaginal secretions seen among the infected IUD users with *T. vaginalis* was strongly related to the infection. Furthermore, the rate of infection by vaginal trichomoniasis is increased with the prolonged continuous usage (more than 3 years) of progestin injectables and OCPs. Statistical analysis didn't show significant association between these contraceptive methods and trichomoniasis.

In the present study, the risk *T. vaginalis* infection was increased among female with age below thirty years old. The risk of *T. vaginalis* infection was significantly correlated with being a housewife. *T. vaginalis* infection was highest among females with moderate and high education who lived in urbanized areas. The study found eighty three (74.7%) of positive cases among women with irregular usage of vaginal douching and (71.4%) among newly diagnosed diabetic females without significant association.

The most common presenting complaints among diagnosed cases were dysuria (77.7%) followed by vaginal itching, increased (yellow or white) discharge then malodour. There wasn't a direct relationship between *T. vaginalis* infection and the presence of these symptoms or the colour of vaginal discharges. The present study found the consistency of discharge was related to

trichomoniasis especially the frothy discharge. The presence of cervical red spots are also strongly related to *T. vaginalis* infection and more common among IUD users.

Culture using modified Diamond's medium had a better detection rate of *T. vaginalis* (69.8%) on vaginal discharge than wet mount (22.2%) examination and Giemsa stain (47.6%) but required more time. The specificity of wet mount and Giemsa stain methods were 100%. The sensitivity of wet mount and Giemsa stain methods versus culture were 32% and 68% respectively. In the current study the results of the diagnostic tests showed strongly statistically significant differences. Combination of these methods gives best results in detection of the parasite.