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Detection of *Trichomonas Vaginals* among women with contraceptive usage in AL-Najaf AL-ashraf city

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ABSTRACT

This study included (85) women attending the gynecological obstetric department in AL-Maternity & children hospital where they were investigated for the presence of *T. vaginalis* a for period extended November 2006 to March 2007 .The results of the study showed that the rate of infestation of women with *T. vaginalis* was 67.1% &57.6% by Latex agglutination test ,Wet A total of (85) samples included three groups ,infestation rate in women with IUCD 47.4% ,Contraceptive pills 26.5% .followed by the women non contraceptives usage 30.6% There was significant relationship between Intrauterine contraceptive device(IUCD) usage and infection rate .When the accuracy of latex agglutination test was compared with wet preparation method ,there was important significant difference in (P<0.05) .

INTRODUCTION

Trichomoniasis is one of the most common sexually transmitted diseases (STD) (1) ,it can be spread from one person to another through sexual-intercourse .The causative agent of Disease (*T.V.*) can survive for several hours in a moist environment .(2) The symptoms were inflammation of the vaginal walls & exocervix include edema, strawberry cervix ,green-yellow discharge (3). Asymptomatic trichomoniasis may be shown in 20% of women (4), because of position of parasite at superficial not penetration of vaginal epithelial cell(5). Using contraceptive significantly affects a woman's risk of acquiring certain STDs (6) compared with women who do not practice contraception , therefore ,the suggestation may be attributed to the linking between some contraceptive & Trichomonas infection ,base on that ,this study was designed to investigate the contraceptive mean affects the risk of STD infection and tostudy 2 different methods of detection of trichomoniasis

PATIENT POPULATION

The study was carried out on 85 women who were attending to Maternity & children hospital from November 2006 to March 2007 .They were divided into 3 groups namely :-

a-women with intrauterine contraceptive device (IUCD).,composed of 39 women .

b-women with oral contraceptive pills (OCP) ,composed of 27 women

c-women with non contraceptive usage, this group composed of 19 women.

All patients submitted to physical examination .

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Treatment of Samples

The samples were collected during vaginal examination ,vaginal swab was collected from patient using two sterile swabs , first swab was used for direct microscopy examination, this swab was mixed with drops of normal saline and placed on slide and examined at (40X).We saw atypical jerky movement trophozoites these indicated present of T.v. While the second swab was used for LAT kit for detection of anti-trichmonas vaginalis antibodies of women , two ml of blood were collected from patients, centrifugation at 3000 rpm/5 min after that sera were stored at – 20°C until needed in Latex agglutination test , a kit of linear chemicals (Barcelona) was used .

RESULT

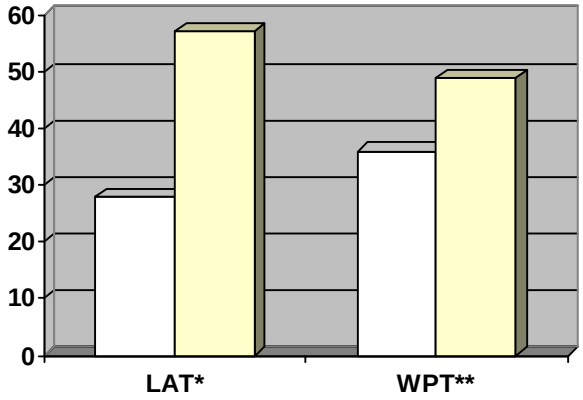
In this study 85 women recorded(57,67.1%) ; (49,57.6%) infected women with *T.vaginalis* by LAT & wet preparation method respectively .as shown in fig .1 Fifty-seven positive cases for *T.vaginalis* with used LAT in different groups. This test revealed that IUCD (27 ,47.4%) ; OCP (14,24.6%) and NCU (16 ,28%) as shown in table (2). In this study IUCD recorded a high percentage (42.9%) ;OCP (26.5%) and NCU 30.6% by using wet preparation Method and high significant difference (P,0.05) as shown in table (3).

DISCUSSION

***T.vaginalis* was a common infection detected in women with contraceptive &non-contraceptive Method as shown in fig (1). In present study the LAT method recoded higher positive rates than wet preparation method (WPM) .This result may be attributed to the sensitivity of LAT as diagnostic method for T.vaginalis Similar study was reported by CDC (7) when they detected the wet method was a high specific (70-80)% and sensitive (50-75)% but not particularly .On other hand studies have reported range from 23% to 58% false negative on wet mount . In the present study ,the peak of incidence was on the percentage 6904% ; 72% by WPM ,LAT respectively among infected women using contraceptive (IUCD,OCP) & a high significant difference (P<0.05) in comparison with infected women not using contraceptive 28% ;30.6% by LAT ,WPM respectively Similar result were recorded by AL -shimerty (9) who found that women using contraceptive were associated with a significantly increased risk of *T.vaginalis* infection .Other studies found that the highest percentage (20.9%)of *T.vaginalis* infection are among women not using contraceptive (10).These results may be due to the effect of estrogen & progesterone which can enhance or suppress the growth of vaginal flora and influence transmission of *T.vaginalis* .Other factors affecting infection may be related to hospital itself such as contamination of tools, catheter…etc used in clinical examination Distribution of *T*.vaginalis according to the using contraceptive as shown in table (2,3) . These results showed IUCD 47.4% ,42.9% by LAT ,WPM respectively ,where as OCP 24.6%,28% by WPM ,LAT respectively .Statistical analysis was highly significant(x2=4.2 ,p< 0.05) ,(x2= 4.86,p< o.o5) respectively Miteb found that *T.vaginalis* increased in women not using contraceptive pills due to increase Glycogen which was stored in vagina mucous membrane leading to production of Lactic acid & decrease PH of vagina which were a good environment for growth of *T.vaginalis* (11) while AL- cani (12)**

found that a high infection rate among women using contraceptive pills (19.5%) .but(8.18%) among women who using IUCD .This result is probably due to the population density and economic instability may play role in these infection,it was found that the risk of infection with STDs occur immediately following insertion IUCD (13),and Sylvial & Bryan (14) found that contraceptive pills provided no protection against infection .In conclusion ,Education to modify sexual behavior, use of condoms ,effective drug therapies for infection & treatment of urinary tract infections .Screening asymptomatic individuals in some population & case contact tracing are also effective measures . Future study , detection of the either type of infection produced by using different type of contraceptive Method & avoiding

fig(1) : Distribution of *T.vaginalis* by use LAT & WPT



LAT = Latex agglutinate test WPT= Wet preparation test

Table (2) :- Prevalence of *T.vaginalis* antibody as detected by LAT in Different subjects.

Groups	NO. of exam.	infected patients	
		NO.(+ve)	%
IUCD	39	27	47.4
OCP	27	14	24.6
NCU	19	16	28
Total	85	57	100

P< 0.05

Table (3):- Distribution of *T.vaginalis* according to the using & non using contraceptive Methods by wet preparation Method.

Groups	NO. of exam.	infected patients	
		NO.(+ve)	%
IUCD	39	21	42.9
OCP	27	13	26.5
NCU	19	15	30.6
Total	85	49	100

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أنتشار داء المشعرات في النساء المستخدمة موانع الحمل في النجف الأشرف

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الخلاصة

فحصت (85) عينة دم ومسحة مهبلية للنساء اللواتي راجعن فرع النسائية والتوليد في مستشفى الولادة والأطفال في محافظة النجف للمدة من تشرين الثاني ٢٠٠٦ ولغاية آذار ٢٠٠٧ .كشفت نتائج الدراسة عن إصابة نساء بطفيلي داء المشعرات وبنسبة 67.1% ، 57.6% باختبارين التلازن اللاتكسي وطريقة المسحة الرطبة على التوالي . سجلت نسبة الإصابة في المجموعات 26.5% الثلاثة ،سجلت أعلى نسبة إصابة نساء تستعمل اللولب 47.4% وحبوب منع الحمل في حين سجلت النساء غير مستخدمة موانع الحمل 30.6% . وسجلت فرق إحصائي يدل على تأثير موانع الحمل (اللولب) على معدلات الإصابة . سجلت دقة اختبار التلازن اللاتكسي مقارنة باختبار المسحة الرطبة ولوحظ وجود فرق إحصائي مهم على مستوى $P<0.05$.