

TRICHOMONAS VAGINALIS

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SUMMARY

The overall prevalence of *Trichomonas Vaginalis* in 500 female patients attending G.O.P.D., S.R.N. Hospital, Allahabad was 11.8%. Majority of the infection was in the age group of 20-29 years. The commonest presenting symptom was vaginal discharge in both pregnant (78%) and nonpregnant (82%) group. The incidence of vaginitis, cervicitis and vulvitis were present in 50%; 33.34% and 16.66% in nonpregnant state and 65.22%, 43.47% and 13.04% in pregnant state respectively. No statistical difference was observed in the incidence of signs and symptoms of both the groups. Sensitivity detection of the organism by culture, wet smear and Pap. stain was 85%, 61% and 17% respectively.

INTRODUCTION

Trichomonas vaginalis was first described by Donne (1836) in the purulent secretions of both men and women and it was not present in normal vaginal secretions. Fouts and Kraus (1980) reported that a frothy discharge is significantly associated with trichomoniasis and that leucorrhoea alone has no significant association. The simplest and rapid method of diagnosis of trichomonal in-

fection is by direct microscopy of unstained wet preparation in which the actively motile organisms are rapidly recognised, although culture is the most sensitive method of diagnosis. The present publication contains the descriptions of epidemiological, pathological and diagnostic aspects of *T. Vaginalis* infection.

MATERIAL AND METHODS

Five hundred cases were taken for the present study from the out patient de-

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partment of Obst. & Gynae., S.R.N. Hospital, Allahabad over a period of one year. All cases were selected by random sampling. Two hundred and fifty cases were pregnant and 250 cases were of nonpregnant variety. Symptomatic and asymptomatic cases were taken into account. A detailed clinical history with meticulous local examination was done and the following laboratory investigations were carried out.

1. Wetsmear examination for T. Vaginalis.
2. Papanicolaou (Pap) staining and culture for T. vaginalis by Diamond's medium.
3. Blood Examinations.
4. Urine examination & culture.

OBSERVATIONS

In our study irrespective of pregnant and nonpregnant states maximum cases (68% & 65%) were detected in 20-29 years of age and 63% were of high parity. Seventy-four percent of cases belonged to lower middle and upper lower class in the pregnant group.

T. Vaginalis was isolated in 36(14.4%) cases of pregnant group and 23(9.2%) cases of pregnant group (Table I). In both non-pregnant and pregnant states the trichomonas positive cases commonly

presented with vaginal discharge (82.35% & 77.77%); pruritus vulve (67.65% & 61.12%) and dyspareunia (17.65% & 27.77%) (Table II). The incidence of vaginitis, cervicitis and vulvitis were 50%, 33.34% & 16.66% in the non-pregnant group while in the pregnant group the respective incidence were 65.22%, 43.47% & 13.04% (Table III). There was no statistical difference in symptoms and signs of both the group. Table IV (b) shows a positive finding, detected by culture method in 84.74%. The wet mount was positive in 62.02% (36/59) of the positive cases while pap stain could detect only 16.95% (10/59) of the positive cases.

DISCUSSION

In the present series the prevalence rate of trichonomiasis in non-pregnant and pregnant groups were 14.4% and 9.2% respectively and the higher prevalence rate in non-pregnant cases correlated well with the findings (17%) of Menon (1959). Thin & Michael (1970) observed that increased acidity during pregnancy might be expected to lower the incidence of trichomoniasis. In our study the symptomatic cases in non-pregnant and

Table I
Distribution of Trichomonas Vaginalis

Group	Symptomatic	Asymptomatic	Total	Prevalence (%)
Nonpregnant (250)	34	2	36	14.4
Pregnant (250)	18	5	23	9.2
Total prevalence rate			59/500	11.8

Table II**Frequency of symptoms in trichomonas positive cases**

Symptoms	Non pregnant no. %	Pregnant no. %
Vaginal discharge	28 (82.35)	14 (77.77)
Pruritus vulvae	23 (67.65)	11 (61.12)
Dysuria	6 (17.65)	5 (27.77)
Back-ache	5 (14.70)	3 (16.67)
Pain abdomen	4 (11.76)	5 (27.77)
Dyspareunia	4 (11.76)	-
Vulval Swelling	-	2 (11.12)

Chisquare test = 2.31 d.f. = 5 N.S. (non significant)

Table III**Frequency of signs**

Signs	Non pregnant no. %	Pregnant no. %
Vaginal discharge	30 (83.34)	20 (86.95)
Vaginitis	18 (50.00)	15 (65.22)
Cervicitis	12 (33.34)	10 (43.47)
Vulvitis	6 (16.66)	3 (13.04)

Chi square test = 0.63

d.f. = 3 N.S.

Table IV (a)**Comparison of wet smear, culture and pap stain detection in T. Vaginalis**

Total positive by culture, wet smear and pap stain	7
Total positive by culture and wet smear	20
Positive only by culture	22
Total positive by culture and pap stain	1
Positive only by wet smear	7
Total positive by wet smear and pap stain	2

Table IV (b)

Diagnosis of *T. Vaginalis*
(No. of positive cases = 59)

Positive by wet smear	36(61.02%)
Positive by culture	50(84.74%)
Positive by pap stain	10(16.95%)

pregnant groups were 94% and 78% respectively and the commonest presenting symptom was vaginal discharge followed by pruritus. Tran-Dinn-De et al (1963) reported that leucorrhoea (52.1%) was the most prominent symptom and in a very few cases pruritus was the chief complaint. Lossick (1984) found that 60% had vaginal discharge, 20% had pruritus and 20% and dysuria. Chatterjee and Pinto-Do-Rosario (1971) reported that 77.6% of trichomonal infection had excessive vaginal discharge and observed pruritus in 23.13% of cases. In the present series the typical forthy discharge was found only in 8.6% of cases. The overall incidence of vaginitis in our study was higher than that of 24.3% as reported by Tran-Dinh-De and Nauyen-Van-Tu (1963). Narvekar et al (1959) reported the association of parasite with 72% cases of vaginitis. The incidence of cervicitis in our series were lower than Kulkarni's (1980) finding (60%) but the incidence were higher than reported by

Narvekar et al (1959), Chatterjee & Pinto-Do-Rosario (1971) and the figures were 28.1% and 1.49% respectively. In our study the wet mount preparation was positive in 61.02% of the positive cases while pap stain could detect only 16.95% of the positive cases. Our finding does not correspond with the findings of Ahluwalia (1989) who proved the later method of detection was superior than the former. Though the wet smear had the rapidity of diagnosis but it left behind a significant number of cases undiagnosed. Hence culture is the most sensitive method (85%) of diagnosis.

REFERENCES

1. Ahluwalia C., Bhaskaran C.S., Sahed A., Youjna: *Ind. J. Obstet. & Gynec.* : 6;834;1989.
2. Chatterjee S. & Pinto-Do-Rosario Y. : *J. Obstet. & Gynec. Ind.* : 21;755;1971.
3. Donne A. : *C.R. Acad. Sci (Paris)* : 3;385;1836.
4. Fouts, A.C. & Kraus S.J. : *J. Inf. Dis.* : 141;137;1980.
5. Kulkarni R., Bhatia V.N., Oumachigui A., Nayak P.N. : *J. Obstet. & Gynec. Ind.* : 32;143;1980.
6. Lossick J.G. : *Urol. Clin. North Am.* : 10;141;1984.
7. Menon M.K.K. : *Bull. Cal. School Trop. Med.* : 42;1959.
8. Narvekar N.R., Code A.G., Purandare B.N. : *J. Obstet. & Gynec. Ind.* : 19;184;1959.
9. Thin R.N.T., Michael : *Brit. J. Veneral Dis.* : 46;126;1970.
10. Tran-Dinn-De & Nauyen-Van-Tu : *Am. J. Obstet. & Gynec.* : 1;92-95;1963.