

INCIDENCE OF TRICHOMONAL VAGINITIS AND ITS TREATMENT WITH NYSTATIN

by

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That trichomonal vaginitis can be produced by inoculation of human vagina with a bacteria-free culture of "Trichomonas Vaginalis" is well known. The above observation has been supported by studies reported by Gafford, Kessel who further indicated that 'Trichomonal Vaginitis' was not constantly associated with any specific group of organisms. Lash observed that the only organisms found with a degree of consistency in a patient with a trichomonal vaginitis were Doderlein bacilli and gram +ve nonhaemolytic streptococci.

Current literature indicates a decrease in the incidence of trichomonal vaginitis, the decrease running in close parallel with a sharp increase in incidence of monilial vaginitis.

Material and Methods

In each of the 400 cases of leucorrhoea studied in this hospital a hanging drop preparation of vaginal discharge was examined under microscope. Our findings relating to the incidence of trichomonal vaginitis in

this series are reported below. Vaginal smear stained with Gram's technique was also examined for other micro-organisms in each case. PH of vagina was recorded with help of Merck Universal Indicator.

Table I
Incidence of Trichomonal Vaginitis in Relation to Age Groups.

Age groups	No. of patients
15-20	8
21-25	34
26-30	24
31-35	18
36-40	8
Above 41	8
Total number of patients ..	100

76 per cent of incidence comes under age-groups 21-25, 26-30 and 31-35, i.e. at the peak of child-bearing period it is highest. While 8% are observed in age-group 15-20, 16% are noted in age-groups 36-40 and 41 onwards. Out of 100 patients examined 12 patients (had shown) menopausal symptoms.

Table II
Incidence of Trichomonal Vaginitis in
Relation to Parity.

Parity	No. of patients
Nulliparous	20
Uniparous	16
Multiparous	64
Total	100

Highest incidence is observed in multiparous women. Nulliparous and uniparous show almost equal percentage of incidence.

Out of 350 non-pregnant cases suffering from leucorrhoea, 96 patients showed trichomonas vaginalis in their vaginal smear, i.e. 27% of the patients suffer from trichomonal vaginitis. Evidence of trichomonas vaginalis was found in 4 patients out of 50 pregnant patients, i.e. the incidence is 8%.

Dyspareunia

Out of 100 patients suffering from trichomonal vaginitis 12 patients were old or widows but out of the other 88 patients, 54 complained of dyspareunia, 34 patients did not complain, i.e. 61% and 29% respectively.

Associated Organisms

In our stained preparations, i.e. vaginal smear stained by Gram's technique, we have observed that most of the smears show an evidence of gram +ve cocci in groups and chains. Though detailed classification of organisms by cultural and biochemical methods was not done in the majority of cases, gram +ve

diplococci were noted. Doderlein bacilli were found in few cases though it is believed that trichomonal vaginitis would not show normal flora of vagina.

Examination of Male Partner

It is believed that trichomonas vaginalis organisms are present in the male genitalia where they are as commensals but when transmitted to female partner they get proper environment for growth and show pathological symptoms. Relapse in female, after treatment is stopped, may be either due to overgrowth of some remaining trichomonas in vagina or due to new introduction of trichomonas in female through male partner hence examination of urine of husband in all cases and semen in 25% cases was done. Trichomonas vaginalis were found in semen of 2% male partner where female partners did not improve with the treatment.

Associated Pathology

Out of 100 patients suffering from trichomonal vaginitis 35 patients showed severe vaginitis on pelvic examination and 34 patients had cervicitis, 5 patients showed evidence of salpingo-oophorectomy. Two patients had genital hypoplasia. In one case there was complete perineal tear. Two had wide introitus and one had sub-urethral cyst. Left ovary was palpable in one case. In the remaining 18 patients there was no evidence of any other pathological condition.

Treatment with Nystatin

Out of 100 patients suffering from

Table III
Results obtained with Nystatin Vaginal Tablets.

Period of therapy	No. of patients	Results	Clinical recovery	Laboratory cure	Period and follow-up
8-12 days	3	nil	no	no	nil
8-12 days	4	excellent	yes	yes	2-3 months
8-12 days	2	good	yes	after two months	2-5 months
12-24 days	6	good	yes	yes	2-3 months
12-24 days	3	fair	yes	after two months	3-6 months
12-24 days	2	nil	nil	nil	no follow-up

trichomonal vaginitis, 20 patients were treated with Nystatin vaginal tablets (100,000 Units) daily to be introduced in vagina at night. Nine patients were treated with 8-12 tablets, i.e. 8-12 days. 2 patients had no follow-up afterwards as there was no improvement during this period and patients did not come for further treatment subsequently. 6 patients showed improvement within 8-12 days and were followed up for 3 months. In 4 of these patients, the organisms disappeared rapidly while in the other two patients, clinical benefit was not associated with simultaneous disappearance of trichomonas which persisted for 1-2 months. The last patient in the series did not respond to treatment. It will thus be seen that six out of 9 patients treated with Nystatin vaginal tablets showed good clinical response.

Eleven patients were treated for 12-20 days. One Nystatin tablet per day was introduced in the vagina at night. 8 of these patients improved and 2 did not improve. One more patient had slight improvement, i.e. 8 out of 11 patients showed good clinical response.

Taking the entire series of 20 cases, it will be seen that six patients out of 20 (30%) did not improve with Nystatin, the remaining 70% improved. 40% improved after a relatively short period of treatment (8-12 days) and 30% required treatment for 12-20 days.

Six patients out of 20 treated showed no improvement, i.e. 30% no improvement, 40% late improvement, 30% good improvement within 12 days with simultaneous laboratory cure. 7 patients had laboratory cure after 2-3 months, i.e. trichomonas persisted in the lesion though the vaginal discharge was less and clinically cured.

Discussion

The incidence according to age-group is calculated. Highest incidence is found in 21-25, 26-30, 31-36, i.e. the child-bearing period. The incidence is found by hanging drop preparation method. Cultural method and Papanicolau stained smear for evidence of trichomonas were not done. Kean *et al.* have recorded that cultural diagnosis is 100%; hanging drop preparation method diagnosis is 76% and Papanicolau

stained smear diagnosis is 78%. Because of the complicated procedure of the last two methods, hanging drop method is selected as it gives a fair amount of accuracy and is simplest. It should be emphasised that this incidence reported is based on single examination done without planned relation to any selection of patients in relation to menstrual cycle. Several examinations may give higher incidence. Out of 350 nonpregnant patients complaining of leucorrhoea, 96 patients showed evidence of trichomonas, i.e. incidence is 27%, while Pace and Shantz show in 43 nonpregnant patients in the series the ratio of candidial vaginitis to trichomonal vaginitis was 7 : 1; in percentage 65.11% of the nonpregnant had candidial vaginitis and only 9.30% had trichomonal vaginitis. In our series of 350 cases candidial vaginitis is 6%, i.e. ratio is 1 : 4, i.e. preantibiotic ratio as there is meagre use of broad-spectrum antibiotics in our gynecological out-patients' department. In 50 pregnant cases 15 patients showed candidial vaginitis, i.e. 30%, and 4 patients showed trichomonal vaginitis, i.e. 8%. The ratio is 4 : 1.

Out of 100 cases of trichomonal vaginitis 20 were treated with Nystatin. 6 patients did not show any improvement, may be they required prolonged treatment for which they did not come at all. From 14 remaining patients 4 showed excellent results, improvement within 12 days. Two more improved but laboratory cure occurred after 1-2 months. 6 patients showed improvement after 12-20 days and 2 improved within 20 days but disappearance of orga-

nisms was after 1-2 months. Though we have treated very few cases of trichomonas vaginalis, i.e. 20, it can be said that the results are promising. The incorporation of lactose base in the tablets may be partly responsible for the high efficacy, further clinical trials are recommended with a control series treated with other standard trichomonicides to ascertain its exact place in the therapeutic armamentarium against this troublesome disease.

Pace and Shantz *et al.* treated 6 patients and 4 were not improved and switched over to other therapy while one showed fair early results.

Summary and Conclusion

1. Incidence of trichomonal vaginitis in 350 nonpregnant and 50 pregnant cases complaining of leucorrhoea is given.
2. Hanging drop preparation method was adopted for evidence of trichomonas vaginalis.
3. Stained preparation with Gram's technique was examined for other organisms.
4. Twenty cases were treated with Nystatin vaginal tablets and results are given.

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