COLPOMIN VAGINAL TABLETS IN THE TREATMENT OF TRICHOMONAL VAGINITIS

by

J. M. DeSa Souza; V. M. Shah; M. N. Parikh;

M. S. Nadkarni

Leucorrhoea is one of the commonest symptoms complained of by women and yet its adequate and permanent cure is one of the most difficult problems in gynaecology.

The main contribution to vaginal discharge is from the cervix and vagina and a very small amount comes from certain pathological conditions of the uterus and tubes; of the causes contributing to excessive vaginal discharge, vaginitis produced by trichomonas vaginalis is very common.

According to Amin about 20-25% of the adult human females harbour trichomonas in the vagina, not necessarily pathogenic. Cervical infection is doubtful whilst Skene's and Bartholin's glands are important sources of reinfection.

Twenty-one per cent of women are found to have trichomonal bladder infection; trichomonas also persists in the lower rectum and may cause reinfection. Hence autogenous reinfection even after full treatment is very common. Donne, a French investigator, in 1836 discovered and described this flagellate. In 1916 Hoehne postulated that trichomonas vaginitis was an aetiological factor in vaginitis. Recent experimental work of Trussell and Plass suggest that trichomonas vaginitis can cause vaginitis regardless of bacterial flora.

But the factors predisposing to infection are:

(1) Decreased activity and changes in the thickness and glycogen content of vaginal mucosa due to ovarian hypofunction.

(2) Menstruation favours infection and hence vaginal tablets must be inserted regularly during menstruation.

(3) Fatigue, trauma of intercourse, pregnancy and puerperium, gastrointestinal disturbances and vitamin B complex deficiency have all been suggested as predisposing causes.

Amin found that diabetes predisposes greatly to it. Chronic trichomonas infection is often associated with psychological stress which, according to Moore, also needs treatment.

The incubation period is about one week. If the infection in the female is not autogenous, it is most certainly contracted from the male who is a silent carrier and the husband therefore must be treated along with the wife.

From the Departments of Obstetrics and Gynaecology and Pathology, Grant Medical College, Bombay-8.

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The *present study* is an evaluation of Colpomin vaginal tablets in the therapy of trichomonas vaginitis. Each tablet contains 100 mgms. Diiodohydroxy-quinoline (U.S.P.) as the protozoacide, 65 mgms. of boric acid and 17 mgms. of phosphoric acid are added to each tablet to achieve modification of the vaginal reaction, the pH of the tablet being 2.9.

It is important to note that trichomonas vaginalis thrives most at a pH of 5.5 to 6.0 Lastly these tablets contain dextrose and lactose, claimed to be in a form readily absorbable by vaginal mucous membrane and usable by Doderlein bacilli. Thus besides the parasiticidal action, a restoration of normal vaginal physiology with its protective bacterial flora is aimed at.

Material

Three hundred and twenty-two patients attending the gynaecological out-patients department of the J. J. Group of Hospitals with a complaint of leucorrhoea were taken up for the study.

Method

A detailed clinical history with special emphasis on the symptomatology and the menstrual pattern was elicited from these patients. They were then subjected to a routine gynaecological examination including a speculum inspection.

The speculum was used dry without any disinfectant or antiseptic lubricant. The characteristics of the vaginal discharge were noted. Vaginal discharge from the posterior fornix was collected for:—

(i) hanging drop preparation.
(ii) culture studies.
(iii) making smears for staining.

Smears were stained by Leishman's stain. For culture studies liquid Vf Bouillon medium, suggested by Magara et al with slight modification (by Mansukhani et al), was used.

Patients found to be suffering from trichomonas vaginitis were treated with Colpomin tablets. The patients were instructed to insert 2 tablets of Colpomin in the vagina as far in as possible, daily at bedtime before retiring, for 14 consecutive days.

They were given the stock of tablets in two instalments at weekly interval. One week after the treatment the patients were called for follow up which included examination of hanging drop preparation, study of stained smears and culture study. A monthly follow up study for a period of 6 months was aimed at, but in spite of all our efforts to contact the treated patients the majority of them failed to report after two or three months.

Incidence

Both hanging drop slide preparation and stained smear studies were carried out in all the 322 cases. In 36 cases the hanging drop slides showed the presence of trichomonas, whereas stained smears were positive for trichomonas in 98 cases. Cultural studies could be carried out in only 278 cases.

Out of the 98 cases that were positive on stained smear examination only 54 could be submitted to culture studies and all those showed positive culture.

Ninety-eight cases were positive for trichomonas on stained smear. Hence the incidence of trichomonas vaginitis amongst the 322 patients suffering from leucorrhoea is 34.4% (Table I).

In 100 cases of leucorrhoea studied by Mansukhani et al at the same institution, the incidence of trichomonas vaginitis was found to be 36%. Shah reports an incidence of trichomonas vaginitis as 27% amongst 350 non-pregnant cases, while Menon found it to be 17% in 100 non-pregnant women. Since the present study includes only those patients who came with the complaint of leucorrhoea a comparison of the incidence found in the present study with that reported by Shah and by Menon is not possible.

TABLE I

Incidence

(a) Total No. of leucorrhoea cases studied:		322
(b) Hanging drop preparation:—		
No. of cases studied ..	322	
Positive for T. vaginalis ..	96	
Negative for T. vaginalis ..	226	
(c) Stained smear:—		
No. of cases studied ..	322	
Positive for T. vaginalis ..	98	
Negative for T. vaginalis ..	224	
(d) Culture studies:—		
No. of cases studied ..	278	
Positive for V. vaginalis ..	54	
Negative for T. vaginalis ..	128	
(e) Patients suffering from T. vaginalis:—		
Smear positive culture positive	54	
Smear positive culture not possible	44	
Total ..	98	
(f) Incidence of T. vaginalis among the patients complaining of leucorrhoea:— 98 out of 322, i.e. 34.4%.		

Age

Table II gives the age distribution of the patients suffering from trichomonal vaginitis. The incidence is maximum between 21 to 35 years of age. As stated by Daftary et al, authors agree that the incidence is highest at 20-40 years of age. In the series of Menon and Willmott 92 patients out of 116 were in the age group of 20 to 39 years. The disease is commonly found during the period of greatest sexual activity, is less frequent after the menopause and only occasionally met with in children. In the present series there was no patient in the post-menopausal or prepubertal period.

TABLE II

Age Distribution

Age in years	No. of cases
16-20	10
21-25	40
26-30	25
31-35	15
36-40	5
41-45	3
Total ..	98

Symptomatology

Table III shows the various symptoms presented by the patient. Only those patients suffering from leucorrhoea were included in the study. But it is well established that trichomonas can be present in the vagina without any symptoms whatsoever especially in carriers.

Table IV gives the duration of leucorrhoea in the present series. In 41% of the patients the leucorhoea was of more than one month's but

TABLE III

Symptomatology

Symptoms	No. of cases
1. Leucorrhoea	98
2. Itching over the vulva	39
3. Menstrual disorders:	
Menorrhagia	6
Irregular cycles	4
Dysmenorrhoea	1
4. Backache and pain in the joints ..	4
5. Weakness and/or loss of appetite	19
6. Pain in the limbs	16

Only those patients who complained of leucorrhoea were investigated further. Of the 322 cases with leucorrhoea, only 98, where trichomonas was positive, were taken up for further study.

less than 3 months' duration. Next to leucorrhoea, itching over the vulva was the most important symptom, being present in 39 out of 98 cases. In Menon and Willmott's series of 116 cases, 103 complained of leucorrhoea, 74 complained of pruritis and none complained of menorrhagia. Menorrhagia is sometimes attributed to trichomonas vaginitis. In the present series there were 6 cases of menorrhagia. Unfortunately sufficient follow up was not possible in these cases to enable the assessment of successful therapy of the trichomonas vaginitis on menorrhagia. Weakness, loss of appetite and pain in the limbs should be considered as coincidental symptoms due to anaemia, calcium and vitamins deficiency.

Type of Discharge

Table V describes the characteristics of the vaginal discharge as noted in this series. This discharge in cases of trichomonas vaginitis is usually described as profuse, bubbly

TABLE IV

Duration of Leucorrhoea

Duration of leucorrhoea	No. of cases
1. Less than 1 month	16
2. 1 to 3 months	40
3. 4 to 6 months	16
4. 7 to 12 months	11
5. More than 12 months	15
Total ..	98

or frothy, mucopurulent, greenish yellow and sometimes offensive. In the present series, in 98 cases the discharge was thick and/or purulent and frothy in 82 (84%) cases. In the 322 cases with leucorrhoea, when the discharge was thick/or purulent and frothy, 35.5% of the cases showed trichomonas, whereas when it was thin watery or mucoid only 17.7% showed trichomonas. Out of the 98 cases of trichomonas 72 (73.5%) had yellow or greenish yellow discharge. In the 322 cases with leucorrhoea, when the discharge was yellow 67% of the cases showed trichomonas whereas when it was white only 12.3% showed trichomonas.

TABLE V

Type of Discharge

(a) Consistency:	
Thick and/or purulent and frothy ..	82
Thin or watery or mucoid	16
Total ..	98
(b) Colour:	
White	25
Yellow or greenish yellow	72
Grey	1
Total ..	98

Results of Therapy

Treatment with Colpomin vaginal tablets as already outlined was started in all the 98 cases. Of these, 51 cases took full treatment for two weeks.

Follow up studies were possible in these 51 cases for a variable period after completion of treatment as shown in Table VI.

TABLE VI

Follow up Study of Patients Who Had Full Treatment

Period of follow up after cessation of therapy	No. of cases rendered negative	Positive for T. vaginalis after treatment
1. Less than 1 month ..	10	0
2. 1 month ..	13	0
3. 2 months ..	12	1
4. 3 months ..	3	0
5. 4 months ..	3	0
6. 5 months ..	6	0
7. 6 months ..	3	0

All these cases except one showed the absence of vaginitis at the follow up studies. The immediate result of therapy can be said to be very good. However, the number of cases that could be followed up for more than two months after therapy is so small that no convincing conclusions could be drawn as regards the recurrence of the infection.

The main drawback in the therapy of t. vaginitis is the frequent recurrence of the infection. It is therefore unfortunate that adequate follow up study of more cases could not be achieved.

Out of these 51 cases, 49 had complete symptomatic relief. It is of interest to note that the patient with persistent positive culture had complete symptomatic relief.

Two patients with persistent negative cultures had no relief from symptoms. Possibly these two had mixed infection in the vagina.

Out of the remaining 47 patients, 37 patients were never seen again after they received tablets for the first week. The remaining ten patients were seen but once at an interval of 1-2 weeks after having one week's treatment.

Follow up study at this time showed positive cultures in 3 out of these 10 cases. Only one week's treatment thus appears to be inadequate.

Conclusions

(1) The incidence of T. vaginitis in 322 patients suffering from leucorrhoea was found to be 34.4%.

(2) The incidence was maximum between 21 and 35 years of age.

(3) Besides leucorrhoea, itching over the vulva was the commonest symptom.

(4) When the leucorrhoeal discharge was thick or purulent and frothy 84% showed trichomonal infection and when it was yellow or greenish yellow and frothy 73.5% showed trichomonal infection.

(5) Two weeks' treatment with Colpomin vaginal tablets shows immediate good results by giving symptomatic relief and negative cultures.

(6) No conclusions could be drawn as regards recurrence of the infection after treatment.

(7) Only one week's treatment with Colpomin vaginal tablets appears to be inadequate.

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