TREATMENT OF TRICHOMONAL AND MONILIAL VAGINITIS: A CLINICAL TRIAL OF DEQUALINIUM CHLORIDE AND NYSTATIN

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Two common forms of vaginitis received much attention for cure in recent years. In view of the shortcomings of the various agents hitherto used in their treatment, there is an obvious need for an effective drug which is free from undesirable properties, is easy for administration and which can be within the means of the common patient. General practitioners would be more facilitated with such a drug.

Recent communications suggested that these requirements might be met with dequalinium chloride, a new anti-bacterial and anti-fungal agent, also effective against Trichomonas infection, and Nystatin, a new anti-fungal antibiotic. A clinical trial was thus set up with dequalinium chloride (Dequadin) in trichomonal and monilial vaginitis and Nystatin (Mycostatin vaginal) in monilial vaginitis due to Candida albicans.

Material and Methods

Trial with Dequadin. This included 30 patients, 20 obstetric and 10 gynaecological. The cases of trichomonal monilial as well as mixed vaginitis were selected for the same. The distribution of the cases was as follows:

Results were based on the total cases of trichomonal and monilial vaginitis treated, which were 24 and 13 respectively. The diagnosis was made by wet smears in trichomonal vaginitis and wet smears and dry gram stained smears in monilial vaginitis from high vaginal swabs. Scraping from the vaginal rugae was considered important in taking the swabs when discharge was scanty or thick.

In this series of 30 patients the symptoms were as follows: Vaginal discharge in 25, itching in 22, burn-

TABLE I

Cases	Trichomonas vaginitis	Monilial vaginitis	Mixed vaginitis
Obstetrical (20)	11	5	4
Gynaecological (10)	6	1	3
Total		6	7

ing of vulva in 6, burning during micturition in 2 (out of which one was proved to be a case of trichomonas infection of bladder). The duration of symptoms ranged from 1 week to 6 months. It was 10 months in the case of trichomonas infection of bladder and 4 years in a post-menopausal case. Fifteen cases had vaginitis and 9 showed vulvitis. The trial included 6 cases of failure with stovarsal vaginal compound.

Treatment and Results

Routine treatment consisted of the insertion of one Dequadin pessary (containing 10 mg. of dequalinium chloride in a bland non-irritant base) high in the posterior fornix, night and morning, for a period of 8 days by the patient himself. In gynaecological cases the dosage was repeated during the menstrual period for 5 days. Two cases had to be given higher dose of 2 pessaries night and morning for 8 days. No other adjuvant therapy was given. Results were assessed after 10 days and at 2 months from the commencement of treatment and were said to be good if patient remained free of both symptoms and organisms, fair when she was free of organism but still had symptoms and poor when patient was not relieved of either. The results on 10th day were as below:

Out of the two cases showing poor results in trichomonas vaginitis, one patient who was a post-menopausal case had severe rash all over the body after 1 day's treatment, which was then discontinued, and the other case was given a repeat higher dose for one week but she did not turn up for follow-up. Out of the three cases showing fair results in monilial vaginitis, two did not continue treatment after 3 days. The third one was a pregnant case with mixed infection of the vagina. She was prescribed a repeat higher dose for 7 days which she discontinued after 3 days. She again returned after 2 weeks with same complaint but this time the vaginal swab was positive for monilia and negative for trichomonas. She was then undertaken for Nystatin trial. Thus the corrected good result for monilial vaginitis comes to 90 per cent.

Results with regards to subjective symptoms were striking in that pru-

TABLE II

	Good	Fair	Poor
Trichomonas vaginitis	15	0	2
Monilial vaginitis	4	2	0
Mixed vaginitis	6	1	0

TABLE III

	Good	Fair	Poor
Monilial vaginitis	22 (91.6%)	0	2 (8.4%)
Trichomonas vaginitis	10 (76.9%)	3 (23.1%)	0

ritus was relieved in most of the cases within 48 hours of the treatment and the average period for the relief of vaginal discharge was observed to be 5 days.

At two months follow-up of the cases, out of 15 cases of trichomonas infection 12 had no recurrence, 2 did not turn up for follow-up and one had recurrence of symptoms. This last case showed the vaginal swab and centrifuged catheter specimen of urine positive for trichomonas. Two out of 4 cases of monilial infection did not turn up, the other two showing no recurrence. From among the mixed cases 5 were both symptom and organism free, 6th case being cured of trichomonas infection and the vaginal swab in her case was still positive for monilia for which she was put on Nystatin treatment. The corrected result at 2 months, therefore, is as follows:

The Mycostatin vaginal tablet (containing 100,000 units of nystatin in lactose base) was inserted by the patient twice daily for a period of 8 days. The treatment was continued during menstruation. Only one case required a repeat course of 2 tablets twice daily for 8 days. The follow-up could only be done at 10 days and at 1 month from the commencement of treatment. The results were assessed as before.

Result at 10 days. Out of 8 cases 5 showed good response and 3 were relieved. Out of these 3 patients one discontinued the treatment from 4th day, the other did not turn up for a repeat course and the third one was a pregnant patient who had re-treatment of 2 tablets twice daily for 8 days and is now both symptom and organism free. After one month all patients were followed-up and showed no recurrence. Thus 6 out of 8 patients were cured giving a cure rate of 75 per cent. Itching was relieved on 4th day in 2 cases and on 12th day in the 3rd case who had a repeat course of treatment. The 4th one was not relieved of itching and the vaginal swab was positive for trichomonas. Patients had relief from the vaginal discharge in about 5 days.

TABLE IV

	Number of cases	
	Followed up	With no recurrence
Tricomonas vaginitis	19	18 (94.7%)
Monilial vaginitis	8	7 (87.5%)

Trial with Nystatin

This included 8 cases of monilial vaginitis due to candida albicans, 4 being obstetrical and 4 gynaecological cases. The symptoms in these cases were vaginal discharge in 7, pruritus in 4 and burning of vulva in 4. The duration of symptoms ranged from 1 to 8 weeks. Vaginitis was present in 5 and 1 suffered from acute vulvitis. Two of the patients had received broad spectrum antibiotics previously.

Discussion

No specific dependable therapy for trichomonas and monilial vaginitis

is known as yet. But encouraging reports have been put forward on the use of Nystatin in monilial vaginitis (Chesney, 1956; Pace and Schantz, 1956; Stallworthy, 1956; Abbas, 1958). The treatment of monilial vaginitis with gentian violet, though satisfactory, has the disadvantage of staining the clothes and producing local irritation, and it cannot be self administered properly. Gentian violet suppositories melt in the tropics. Jennison and Llywelyn in 1957 proved Nystatin to be more effective than gentian violet. They reported 88 per cent cure by Nystatin and only 47 per cent by gentian violet, with a relapse rate 4 weeks after treatment, 21 per cent in the 1st group compared to 46 per cent in the control, 18 of which failed to respond to gentian violet. Nystatin cured 16.

The use of arsenic in the treatment of trichomonas vaginitis was described by Gellhorn as early as 1933. The pentavalent arsenicals have been used in various preparations and improved techniques of administration have shown satisfactory results but the procedures are too complicated and frequent for proper therapy and moreover the possibility of toxic reaction and local cutaneous disturbances remains. The overuse may create a local vulvitis which is more severe than that produced by the original infection. Reports concerning the use of oral Tritheon (Ortho) have been fairly promising (Porl, Guttmacher and Raggazoni, 1956), although here too, even after concentrated treatment a large number of recurrences have appeared. But Gardner and Dukes in 1956 had disappointing results with oral Tritheon in trichomonas vaginitis and also a number of cases in their series showed side effects including nausea, anorexia, abdominal cramps, lethargy, swelling of hands and feet, and (in one case) severe erythema multiforme. Results of Nystatin in trichomonas vaginitis are reported promising by Shah (1958) but Pace and Shantz et al. (1956) had shown the results disappointing.

In the trials under consideration, diagnosis of trichomonas and monilial vaginitis was made by thorough examination of the wet smear and dry smear stained by Gram stain from high vaginal swabs. It seems to be a reliable method of diagnosis as has been reported by Barnes et al. (1957).

The new synthetic agent Dequadin seems to be quite promising in both trichomonas as well as monilial vaginitis. In trichomonas vaginitis the short time therapy of one week has shown good results in 91.6 per cent of cases. Itching and discomfort from vaginal discharge were relieved promptly in most cases. Among the follow-up cases 94.7 per cent were both symptom and organism free at the end of 8 weeks. In monilial vaginitis good result was obtained in 76.9 per cent of cases only after one week's treatment. Equally prompt response as in trichomonas vaginitis cases were obtained with regard to subjective symptoms. Among the cases followed-up 87.5 per cent had no recurrence at the end of 8 weeks. Treatment with Dequadin seems to be quite effective in clearing the conventional local infections. Recurrent cases need treatment of latent foci by some other method.