MANAGEMENT OF VAGINAL CANDIDIASIS

(A Comparison of Two Formulations of Econazole)

by

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Introduction

Vaginal candidiasis is a fairly common problem encountered in routine clinical practice. Though a number of effective antifungal preparations are available for its treatment, the duration of therapy with these preparations is woefully long, resulting in patient drop-outs leading to improper treatment and poor results. An effective antifungal agent with a shorter course of treatment is therefore always welcome.

Econazole is an imidazole derivative with a broad spectrum antifungal activity but no effect on lactobacilli and has been reported to give high cure rates following a 3 day course. A number of reports (Balmer 1976; Ruppen 1977; Scheurwegh 1978) are now available, claiming 79%-90% cure rates in vaginal candidiasis following local therapy with Econazole nitrate 150 mg once a day for 3 days.

Most of these studies were done using Econazole nitrate ovules. Our country experiences a warm climate during a major period of the year and especially during summer the temperatures are quite high. In such a climate ovules for vaginal use need to be stored at a low temperature prior to insertion; otherwise, the contents tend to melt and insertion becomes difficult.

An open study was therefore undertaken to assess the role of Econazole nitrate in treatment of candidal vaginitis and to compare the efficacy of ovules with that of tablets for vaginal use.

Material and Methods

The study was carried out at the Obstetric and Gynaecology outpatient clinic of Municipal Medical College and Sheth Vadilal Sarabhai General Hospital and Chinai Materinity Home, Ahmedabad. One hundred and sixteen cases of vaginal candidiasis who volunteered for the study and were willing to come for follow up repeatedly were included. Patients from all age group were included.

A thorough clinical examination was done and vaginal discharge obtained for smear examination and culture studies. In most cases the findings on clinical examination and the nature of discharge were highly characteristic. Following confirmation of diagnosis after microscopic examination of discharge, insertion of ovules and tablets were explained and demonstrated to all patients. The first insertions were done by a resident doctor and the patient was given the remaining two to be inserted by herself on the

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next two days. Follow up to assess response and course of illness was done on 3rd, 5th and 7th day initially and at 2 weeks and 4 weeks subsequently in all cases. In some cases the followup was for much longer period i.e. upto 8 weeks.

Results

Age of the patients studied ranged between 19-45 years. Most of the patients had symptoms and examination findings characteristic of candidal vaginitis.

Of the 116 cases taken for study, 18 dropped out at the second or subsequent visits and were not available for follow up. They were excluded from the analysis. Thus 98 cases who could be regularly followed up upto atleast 4 weeks or more were analysed. Sixty-four patients received vaginal ovules and 34 patients received the drug as vaginal tablets. There were a total of 51 pregnant women and 47 non-pregnant women.

Results of therapy in different patient groups is shown in Table. In the group receiving vaginal ovules, 73.4% (47 patients) were cured after 1 course of treatment with no recurrence in the follow up period. Five patients responded to the 1st course of therapy but recurred during the period of observation. All of them were cured with a second course of treatment. Five patients did not show much response to 1st course of treatment and a second course resulted in cure without recurrence during the follow up period. The total cure rate after two courses in this group was 89%.

In the group receiving vaginal tablets 76.5% (26 patients) were cured after one course of treatment without recurrence. Three cases had recurrence after initial response to first course, they were all satisfactorily treated by a second course. Three cases did not show satisfactory response to first course of therapy, a second course resulted in cure in all the 3 cases. The total cure rate after two courses in this group was 94%.

The overall cure rate with Econazole

TABLE

Response of Econazole in Vaginal Candidiasis

	Econazole Ovules			Econazole Tablets			Total (1 + 2)
	Pregnant	non-pregnant	Total	Pregnant	non-pregnant	Total	
Cases taken for study	49	31	80	14	22	36	116
Lost to follow up	10	6	16	2	—	2	18
Completed study	39	25	64	12	22	34	98
Cure after first course (No recurrence)	26 (66.6%)	21 (84%)	47 (73.4%)	8 (66.6%)	18 (81.8%)	26 (76.5%)	73 (74.4%)
Recurrence after first course responded to second course	3	2	5	1	2	3	8
No response first course cured after second course	4	1	5	2	1	3	8
Total response after second course	33 (84.6%)	24 (96%)	57 (98%)	11 (91.6%)	21 (95.4%)	32 (94.1%)	89 (90.8%)

nitrate was 74.6% after the first course and 90.8% after the second course. Pregnant patients more often required a second course of treatment. The overall response in pregnant patients as compared to non-pregnant cases was 65.3% and 86.2% as compared to 82.9% and 95.7% after first and second course of therapy respectively.

Discussion

The present study amply indicates that Econazole nitrate as a three day therapy for vaginal candidiasis is highly effective, giving a cure rate of 74.6%. This improves to 90.8% after two courses of therapy. These findings corroborate with the observations of others (Balmer 1976; Ruppen 1977; Schenrwegh (1978), who have reported cure rates ranging from 79% to 90% after a single course of therapy and rising to as high as 93% after the second course. The slightly less overall effectivity in the present study may be related to a large number of pregnant women in this study.

Treatment of vaginal candidiasis during pregnancy is difficult and often requires a long course of treatment. As mentioned earlier, pregnant women more often needed a second course of treatment as compared to non-pregnant; inspite of this, cure rates of 65.3% and 86.2% after first and second course of 3 day treatment with Econazole nitrate are highly encouraging.

In a population, where women are highly reluctant to seek medical advice or undergo medical treatment for vaginitis because of ignorance and shyness, where proper storing facilities for vaginal ovules are not available, and teaching the patient about the use of vaginal cream applicator is a problem, vaginal tablets appear a better mode of administering the antifungal agent locally for treatment of vaginitis, if there is no great difference in effectivity with the two formulations. The present study clearly shows that Econazole nitrate as vaginal tablets is as effective as Econazole nitrate in the form of ovules in the treatment of candidal vaginitis.

Summary

One hundred sixteen cases of vaginal candidiasis were studied to assess the therapeutic efficacy of two formulations of Econazole nitrate (ovules and tablets). Both formulations were equally effective. Econazole nitrate 150 mg daily for 3 days was found to be a highly effective therapy for candidal vaginitis.

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