

## MICONAZOLE IN VAGINAL MONILIAL INFECTION

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Fungal infections of vagina in Gynaecological and obstetrical practice are fairly common. The extensive use of broad spectrum antibiotics and oral contraceptives has enhanced its prevalence Walsh *et al* (1968).

Miconazole is a new antifungal agent and has shown promising results in clinical trials. It is found to be ineffective against Gram negative bacteria. Miconazole not only has a potent anti-candidal activity but also fosters restoration of the vaginal physiology i.e. normalizes vaginal PH and promotes the growth of Doderlein's bacilli. In man the high effectiveness of miconazole has been reported in the topical treatment of mycotic, skin, nail and vaginal infections.

A pilot study was conducted to assess and compare the results of miconazole treatment in two schedules—one with 15 days duration, other with five days duration.

The statistical data and observations have been stated below:

### Material and Methods

Of the patients attending the gynaecological and obstetrical out patient department for the various complaints 92 patients were subjected to this trial.

A detailed history regarding the complaints and especially regarding any as-

sociated illness and other possible predisposing factors was taken. A thorough general examination was carried out to detect diabetes mellitus, koch's and fungal infection in any other site.

A thorough vaginal examination was carried out to assess the nature and amount of vaginal discharge and the condition of the vulvae. Presence of any other condition such as erosion of the cervix was also noted.

### Diagnosis

Diagnosis of monilial vaginitis was by microscopic examination of a smear of the discharge and by culture on sabraud's medium.

The patients who were diagnosed to be having monilial vaginitis were divided randomly into 2 groups. Each patient was given 1, 78 gm. tube of 2% Miconazole nitrate and an applicator which would apply approximately 5 gm. of cream each time.

((A) In this group 77 patients were included and each one was asked to apply one applicatorful of cream at bed time once daily for 15 days.

(B) Fifteen patients were included in this group and each one was asked to apply one applicatorful once daily for 5 days.

The patients were examined clinically and mycologically at the end of the

respective treatments and some were followed up for various duration of time.

#### Observations

Majority of the cases (67%) were in the age group 21-30 years.

Fifty patients were pregnant, 40 were non-pregnant and 2 were menopausal.

One patient was receiving antitubercular treatment, 1 had undergone vaginal hysterectomy, 1 had generalised fungal infection and 3 were on broad spectrum antibiotics for other complaints. Eight patients gave the history of having used vaginal pessaries in the past for the same complaints, while 9 were on oral contraceptive pills.

The vaginal discharge was creamy in 85 cases, serous in 4 and frothy in 3. In 12 cases the excoriation was so much that the labiae were swollen.

Wet Smear with KOH was positive in 62 cases (67% approx). Gram's staining was positive in 79 (86%). In 3 smears associated presence of *T. vaginalis* was observed. Culture examination of all 92 patients was positive. *Candida albicans* was identified in 91 cases and *Torulopsis glabrata* in one case.

#### Results

Results from the 2 groups have been shown separately:

(A) Seventy-three cases out of seventy-seven were relieved of symptoms and clinically and mycologically cured after one course of treatment for 2 weeks. This gives us the cure rate of 94% approx. The improvement in symptoms was striking. Itching ceased as early as the second day.

The 4 cases who required 2 courses of treatment stated that they had used the drug irregularly.

At the end of the treatment excoriation of the vulva had disappeared and the vulval and vaginal epithelium looked healthy in all the cases.

The patients were followed up for 6 months mycologically. At the end of 6 months, 60 cases were mycologically free of infection, while in the remaining 17 there was clinical cure but cultural examination could not be done. A further follow-up after 6 months revealed that in 75 cases there was uniform improvement. Only in 2 cases there was recurrence. One was pregnant while the other had generalised fungal infection of the skin. Both these cases had been previously cured mycologically with 1 course of 15 days treatment.

No adverse side effects were observed during the trial such as increased itching, burning sensation.

(B) In this group, there were 15 patients. Twelve out of 15 were clinically cured with 1 course of 5 days treatment while 2 showed marked clinical improvement.

It is evident that 80% were cured and nearly 93% patients improved with only 1 course of 5 days' treatment. Of the 5 patients who were mycologically positive, 3 were pregnant and 2 were not. No other possible predisposing factor was noted in them.

Five patients were followed up at approximately one month's interval. All 5 of them were clinically as well as mycologically cured.

The symptomatic relief was dramatic. Most of the patients were relieved of pruritus on the second day only. One patient out of 15 complained of exaggeration of symptoms. Thus out of 15 patients, 13 were symptomatically cured giving a cure rate of 87% approx.

### Conclusion

From the preliminary results obtained from the clinical trial, it is evident that miconazole cream is an effective anti-fungal agent. Its application is convenient and accepted by patients from all socio-economic strata.

Its effect on itching is remarkable. It is seen that when the cream is used for 5 days the clinical cure rate is almost the same as when it is used for 15 days. This is in accordance with the results obtained by other workers.

### Summary

A new antifungal agent miconazole nitrate as 2% cream was tried on 92 patients suffering from monilial vaginitis.

Seventy seven patients were put on fifteen days' drug schedule and fifteen patients on five days schedule.

The results were very promising in both the schedules.

### Reference

- Walsh, H., Hilderbrandt, R., Prystowsky, H.: Am. J. Obstet. Gynec. 101: 991, 1968.