



VULVOVAGINITIS CANDIDIASIS; EFFICACY OF ORAL TREATMENT WITH FLUCONAZOLE

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ABSTRACT... Introduction: Vulvovaginitis candidiasis is one of the common problems encountered by females and accounts for one third of vaginitis cases. **Objective:** To study the efficacy of oral treatment with fluconazole in vulvovaginitis candidiasis. **Study Design:** Descriptive case series. **Setting:** This study was conducted in the Department of Gynaecology, Lahore General Hospital, Lahore and Shalamar Hospital Lahore. **Duration with Dates:** Six months from October 2009 to March 2010. **Subjects and Methods:** One hundred and twenty five patients fulfilling the inclusion criteria were selected for this study. Demographic history regarding name, age and parity, etc. were taken. Patients received fluconazole 150mg after taking smear for microscopy and culture carried out in Lahore General Hospital laboratory and then Shalamar Hospital laboratory. All patients were reevaluated after 2 weeks for clinical and mycological cure by taking the history and repeating smear for microscopy and culture. **Results:** The mean age of the patients was 31.4+ 6.4 years. The mean duration of marriage of the patients was 8.7+6.2 years. There were 11 (8.8%) patients of 0 parity, 63 (50.4%) patients of parity range of 1-2, 41 (32.8%) patients had parity range of 3-4 and 10 (8%) patients had 5-6 parity range. 99 (79.2%) patients had clinical cure. There was good efficacy of 79.2% and 26.8% patients failed to show the response. **Conclusion:** From this study fluconazole 150mg is proved to be safe and effective for the treatment of vulvovaginitis candidiasis but therapy of vaginitis should be individualized, taking into consideration severity of disease, history of vaginitis, and patient preference.

Key words: Vulvovaginitis candidiasis, fluconazole, efficacy, oral therapy.

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INTRODUCTION

Vulvovaginitis candidiasis is one of the commonest problem encountered by females and accounts for one third of vaginitis cases.¹ 75% of female will have at least one episode in their life.² In 80% of cases, candidiasis is caused by candida albicans. Other species *C glabrata* and *C krusei* accounts for 10%.²

Vulvovaginitis candidiasis is characterized by vulvovaginal itching 50%, soreness of vulva and vagina 24% and curdy white¹, odorless, cottage cheese like discharge is found adhering to vagina.^{2,3,4} The diagnosis of candidiasis is made clinically as well as mycological i.e. by microscopy and / or culture.⁵ However, mycology is not used as primary outcome measure as the candida species occurs in asymptomatic female

also.⁵ So primary outcome measures is clinical cure that is disappearance of sign and symptom of vulvovaginitis aided by mycological cure at 14th day evaluation.⁵

Treatment option can be local or systemic antifungal drugs. Although local treatment is first line of choice⁶ Systemic therapy is equally effective.⁵ It includes tablet fluconazole 150mg by mouth as a single dose⁷, with clinical cure 94% and mycological cure 77% at 14 days evaluation.⁸ Oral fluconazole has cure rate comparable to topical azole antifungal.⁹

Fluconazole being oral treatment and single dose is easy to administer and is appropriate for the treatment of vulvovaginitis candidiasis.¹⁰

Fluconazole is a triazole antifungal which acts by inhibiting synthesis of ergosterol thus disrupting fungal cytoplasmic membrane. It has proved its effectiveness with lesser side effects leading to its extensive usage globally.⁷ Common adverse effects include rash, headache, dizziness, vomiting and diarrhea.¹¹

Vulvovaginitis candidiasis is a chronic nuisance in terms of its fussy symptoms hampering daily life. My study is designed to see the effectiveness of oral route in treating this, as I think that this route is very effective and has no compliance problem.

OBJECTIVE

To study the efficacy of oral treatment with fluconazole in vulvovaginitis candidiasis.

OPERATIONAL DEFINITIONS

Vulvovaginitis Candidiasis

Symptoms like itching, soreness of vulva and vagina and curdy white discharge on speculum examination along with mycology on HVS.

Oral Therapy

Fluconazole given to subjects in dose of 150 mg once only.

Efficacy

It will be judged by:-

- (a) Clinical cure: disappearance of sign symptoms on 14th day evaluation.
- (b) Mycological cure: confirmed by microscopy and / or culture.

Efficacy will be labeled when both of these parameters are fulfilled.

MATERIAL AND METHODS

Setting

This study was conducted in the Departments of Gynaecology, Lahore General Hospital, Lahore and Shalamar Hospital Lahore.

Study Design

Descriptive cases series.

Sample Size

125 cases were taken as sample size assuming the mycological cure by fluconazole therapy as 77%.

Study Duration

Six months from October 2009 to March 2010.

Sampling Technique

Non-probability purposive sampling.

Inclusion Criteria

1. Married women.
2. Patients with uncomplicated vulvovaginitis candidiasis as per operational definition.

Exclusion Criteria

1. Pregnant.
2. Breast feeding (as told by history).
3. Diabetic (as told by history and previous record).
4. On steroids.
5. Recurrent vulvovaginitis candidiasis with previous history of treatment.

Data Collection Procedure

One hundred and twenty five patients fulfilling the inclusion criteria were collected from Outpatient Department of Gynaecology Unit-2, Lahore General Hospital Lahore and Shalamar Hospital Lahore. An informed consent was taken from all the patients after explaining the treatment option and for using their data in research. Demographic history regarding name, age, parity, etc, were taken. Patients received fluconazole 150 mg after taking smear for microscopy and culture done in Lahore General Hospital laboratory. All patients were reevaluated on day 14 for clinical and mycological cure by taking the history and smear for microscopy and culture. The data from each patient was recorded on proforma (attached as Annexure).

Statistical Analysis

The collected data entered into SPSS version 10 and analyzed. The variable like age and duration of marriage and parity were shown as mean and standard deviation. The qualitative variables like

efficacy (clinical and mycological cure) were presented as percentages.

RESULTS

125 patients of vulvovaginitis candidiasis were selected from Outpatient Department of Gynaecology, Lahore General Hospital Lahore.

The mean age of the patients was 31.4 ± 6.4 years. There were 5 (4%) patients of age range of upto 20 years, 61 (48.8%) patients of age range of 31-40 years and 13 (10.4%) patients of age range of 41-50 years (Table-I).

Age (Years)	No	Percentage
Upto 20	5	4.0
21-30	61	48.8
31-40	46	36.8
41-50	13	10.4
Mean+SD	31.4 ± 6.4	

Table-I. Distribution of patients by age (n=125)

Key:- n = Number of Patients SD = Standard Deviation

The mean duration of marriage of the patients was 8.7 ± 6.2 years. There were 53 (42.4%) patients of duration of marriage of 1-5 years, 34 (27.2%) patients of duration of marriage of 6-10 years, 17 (13.6%) patients of duration of marriage of 11-15 years, 10 (8%) patients of duration of marriage of 16-20 years and 11 (8.8%) patients of duration of marriage of 21-25 years (Table-II).

Duration (Years)	No	Percentage
1-5	53	42.4
6-10	34	27.2
11-15	17	13.6
16-20	10	8.0
21-25	11	8.8
Mean+SD	8.7 ± 6.2	

Table-II. Distribution of patients by duration of marriage (n=125)

Key:- n = Number of Patients SD = Standard Deviation

The mean parity of the patients was 2.3 ± 1.4 para. There were 11 (8.8%) patients of 0 parity, 63 (50.4%) patients of parity range of 1-2 para, 41 (32.8%) patients had parity range of 3-4 para and 10 (8%) patients had parity range of 5-6 para (Table-III).

Parity	No	Percentage
	11	8.8
1-2	63	50.4
3-4	41	32.8
5-6	10	8.0
Mean+SD	2.3 ± 1.4	

Table-III. Distribution of patients by parity (n=125)

Key:- n = Number of Patients SD = Standard Deviation

In the distribution of clinical cure, 99 (79.2%) patient had clinical cure (Table-IV). In the distribution of mycological cure, 99 (79.2%) had cure on evaluation on 14th day (Table-V).

Clinical Cure	No	Percentage
Yes	99	79.2
No	26	20.8
Total	125	100.0

Table-IV. Distribution of patients by clinical cure (n=125)

Key:- n = Number of Patients

Mycological Cure	No	Percentage
Yes	99	79.2
No	26	20.8
Total	125	100.0

Table-V. Distribution of patients by mycological cure (n=125)

Key:- n = Number of Patients

In the distribution of efficacy of treatment, 99 (79.2%) had efficacy of treatment and in 26 (20.8%) patients no efficacy of treatment was demonstrated (Table-VI).

Efficacy	No	Percentage
Yes	99	79.2
No	26	20.8
Total	125	100.0

Table-VI. Distribution of patients by efficacy of treatment (n=125)

Key:- n = Number of Patients

DISCUSSION

Vulvovaginitis candidiasis is one of the commonest problems encountered by females. In our study the mean age of the patients was 31.4 ± 6.4 years. As compared with the study of Donders et al¹³ the mean age of the patients was 33.1 years, which is comparable with our study.

In another study conducted by Saeed et al¹² the mean age of the patients was 32 years, which is same and comparable with our study.

In our study, 79.2% had efficacy of treatment after evaluation on 14th day. As compared with the study of Sobel et al⁸ the efficacy of fluconazole with clinical cure was 94% and mycological cure 77% at day 14 evaluation, which is comparable with our study. No significant side effects of fluconazole were observed during the treatment.¹⁰ At the 5th week evaluation, 75% remained clinically cured, and 56% were therapeutic cures.⁸

De Punzio et al¹⁴ compared the fluconazole 150 mg single dose with itraconazole 200 mg per day for 3 days in his study. At the Day 7 visit, patients treated with fluconazole showed 97% cure rate as compared to itraconazole group which showed cure of 93.75%.

Saeed et al¹² in his study checked the efficacy and safety of single dose fluconazole therapy for vulvovaginal candidiasis. One hundred and Sixty five patients were given fluconazole for candidiasis and followed after one week. Clinical improvement was found in 89.7% patients and mycological cure was found to be 79.4%. At long term follow up visits, 60% cases were found clinically cured and mycological eradication was found in 91.4% cases. Mild side effects were found in 14.2% cases.

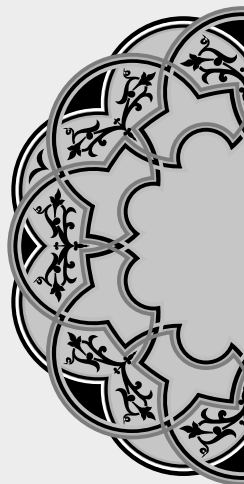
CONCLUSION

From this study fluconazole 150mg is proved to be safe and effective for the treatment of vulvovaginitis candidiasis but therapy of vaginitis should be individualized, taking into consideration severity of disease, history of vaginitis, and patient preference.

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
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“Nobody has everything but everybody has something.”

Unknown

AUTHORSHIP AND CONTRIBUTION DECLARATION

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