

## **Treatment of pityriasis versicolor with two Weekly dose of systemic fluconazole.**

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### **Summary :**

*Background:* The application of systemic fluconazole in the management of Tinea versicolor is well distributed around the world .This treatment has recently began in our country.

*Objective:* To study the effect of systemic fluconazole given orally once a week for two successive weeks in curing tinea versicolor and preventing recurrence.

*Methods:* 35 patients with Tinea versicolor were treated with a single oral dose of fluconazole at the Department of Dermatology in Baghdad Teaching Hospital .The treatment were designed to give 300 mg as single dose to be repeated next week with 150 mg and followed up for one month.

*Results:*The treatment with single oral dose of fluconazole (300mg) cured 28 patients i.e. 80% of cases who were free of lesi

*Conclusion:* Systemic fluconazole therapy is very useful for chronic or extensive pityriasis versicolor.

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### **Introduction**

Tinea versicolor is a very common skin disease (1) caused by yeast of the genus *Malassezia* which are known to be member of skin microflora of human (2). These lipophilic yeasts are associated with chronic superficial scaling dermatomycosis. Usually located on the neck , upper trunk and or upper arms (3). This disease is common in late teens and young adults of both sex and characterized by well demarcated scaling patches with variable pigmentation (4). Mild itching and inflammation about the patches may be present (5). The eruption tend to flare when the temperature and humidity are high in immunosuppression ,or with systemic corticosteroids . Sweaty or greasy skin also causes the disease to flare (5, 6). The presence of these factors is also the reason for the high rate of recurrence seen in pityriasis versicolor and for its chronicity. There are numerous ways of treating it topically and systemically (4, 7, 8). However; short term oral treatment with fluconazole is very effective and the risk of side effects is minimized with short treatment regimen (4, 9). Oral fluconazole may be effective in a dose of 400mg given once weekly with or without a maintenance dose in the next week (10, 11, 12). The hypo and hyper pigmentation will take time to resolve and is not a sign of treatment failure (13).

### **Methods:**

The study started on the beginning of October 2004 and lasted to the end of March 2005. it included thirty five patients with tinea versicolor attending the Department of Dermatology in Baghdad Teaching Hospital.

Diagnosis of pityriasis versicolor was confirmed by mycological examination (14) by scraping some of the scale from a lesion and looking for the characteristic "meat ball and spaghetti" under direct microscopy with KOH 20% and methylene blue staining. The meat ball is the yeast and spaghetti are the short hyphae (15). After diagnosis , full history was taken and blood sample was aspirated for complete blood picture and ESR ,then a single oral dose of 300 mg fluconazole of Microlabs Com. ,India under FUGICON-150 ® was given in the same day (two capsules) . The patient were seen next week for follow up of the lesions and asked about any adverse effect of the drug noticed by the patient after taking the first dose ,and another blood sample was taken to repeat the same tests and then a second dose of 150mg of the same drug was given , for each patients, the skin scraping was repeated to prove the cure of lesion and. In the third weekly visit the patients were informed about the hypo or hyper pigmentation that it will take about two months to disappear and it was unrelated to failure of treatment 30 patients returned for follow up and 5 patients came later complaining of recurrence of the rash after showing partial improvement which may be related to irregular intake of the drug . Methods:

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After diagnosis, full history was taken and blood sample was aspirated for complete blood picture and ESR, then a single oral dose of 300 mg fluconazole of Microlabs Com., India under FUGICON-150® was given in the same day (two capsules). The patient were seen next week for follow up of the lesions and asked about any adverse effect of the drug noticed by the patient after taking the first dose, and another blood sample was taken to repeat the same tests and then a second dose of 150mg of the same drug was given, for each patients, the skin scraping was repeated to prove the cure of lesion and. In the third weekly visit the patients were informed about the hypo or hyper pigmentation that it will take about two months to disappear and it was unrelated to failure of treatment 30 patients returned for follow up and 5 patients came later complaining of recurrence of the rash after showing partial improvement which may be related to irregular intake of the drug.

#### Results:

From 35 patients 57.15% of cases were males and 42.85% of cases are females. The age varies from 5-60 years with a mean (26.65) year (Table-1), the highest prevalence of Tinea versicolor with 20-30 years of age. Direct examination of scraping was positive in 95% of lesion in the first visit but after the intake of the first dose 80% of the patients give a negative scraping test for all the lesion and all the scales

disappeared in the patients who received single oral dose of fluconazole 300mg to be maintained by 150 mg next week and after 3 weeks the lesions were examined by the dermatologist and scraping was -ve in 28 patients (80%), and +ve in 2 patients (6.8%) while the 5 patients (14.2%) showed partial improvement and did not return for another dose and follow up (Table-2) but came later complaining of recurrence and treated with topical agents by the dermatologist, so most of patient found the treatment effective and convenient as after 6 weeks of follow up the lesions still free of any yeast after scraping.

The treatment was safe, with no or very few side effects, the results of complete blood picture of 35 patients was detected after one week of the intake of the first dose of fluconazole, the

leucopenia in some patients was the same before the treatment (Table 3).

Table (1)

Total number of patients	Male	Female
35 (100%)	29 (57.15%)	15 (42.85%)

Distribution of tinea versicolor in both sexes

Table (2)

Total	Complete cure	Partial improvement	No improvement
35(100%)	28(80%)	5(14.2%)	2 (6.8%)

Distribution of response to fluconazole therapy

#### Discussion:

Although tinea versicolor has worldwide occurrence; its frequency is variable and depends on different climatic, occupational and socio-economic conditions (1, 16). Similar to other investigation (1, 3, 16) the highest prevalence of tinea versicolor in present study was observed in 20-30 year old group (14, 16) diagnosis of tinea versicolor is generally simple and lies on the clinical manifestation and microscopic examination of the lesion (5, 14, 16). In this study the use of systemic fluconazole therapy in a two weekly dose was very effective in management of chronic and recurrent cases specially in the immuno-compromised patients who were taking steroid or chemotherapy for different purposes and attended the Dermatology for the tinea versicolor only (4,7,8,13,). In this study on Iraqi patients 80% of our patients were cured by this treatment regime while 14.2% showed partial improvement where by itching and scaling disappeared and few lesions remain after taking complete course of this drug which needs the application of topical treatment to cure the patient completely.

#### Conclusions:

Systemic oral fluconazole therapy was effective satisfactory for our Iraqi patients for its short duration, few side effects and low cost about one dollar for each course.

Table3

Patient no.	RBC	WBC	N <sup>1</sup>	L <sup>1</sup>	M <sup>1</sup>	E <sup>1</sup>	Platelets
		TOTAL					
1.	Normochromic normocytic	6x10 <sup>9</sup> /L	70%	26%	3%	1%	Normal
2.	Normochromic normocytic	4.6x10 <sup>9</sup> /L	54%	39%	4%		Normal
3.	Normochromic normocytic	3.4x10 <sup>9</sup> /L	55%	39%	4%	2%	Normal
4.	Normochromic normocytic	6.6x10 <sup>9</sup> /L	49%	45%	2%	4%	Normal
5.	Normochromic normocytic	5.2x10 <sup>9</sup> /L	54%	40%	4%	2%	Normal
6.	Normochromic & anisocytosis	6.2x10 <sup>9</sup> /L	72%	25%	2%	1%	Normal
7.	Normochromic normocytic	4.6x10 <sup>9</sup> /L	57%	31%	6%	6%	Normal
8.	Normochromic normocytic	5.2x10 <sup>9</sup> /L	58%	34%	8%		Normal
9.	Normochromic normocytic	5.8x10 <sup>9</sup> /L	54%	41%	4%	1%	Normal
10.	Normochromic normocytic	7x10 <sup>9</sup> /L	71%	25%	2%	2%	Normal
11.	Normochromic normocytic	6.2x10 <sup>9</sup> /L	80%	18%	2%		Normal
12.	Normochromic normocytic	2.2x10 <sup>9</sup> /L	56%	40%	2%	2%	Normal
13.	Normochromic normocytic	10x10 <sup>9</sup> /L	57%	41%	2%		Normal
14.	Normochromic normocytic	6.4x10 <sup>9</sup> /L	69%	20%	7%	5%	Normal
15.	Normochromic normocytic	5.2x10 <sup>9</sup> /L	64%	29%	5%	2%	Normal
16.	Normochromic normocytic	5.2x10 <sup>9</sup> /L	36%	60%	3%	1%	Normal
17.	Normochromic normocytic	6.2x10 <sup>9</sup> /L	61%	32%	4%	3%	Normal
18.	Normochromic normocytic	3.6x10 <sup>9</sup> /L	67%	31%	1%	1%	Normal
19.	Normochromic normocytic	6.6x10 <sup>9</sup> /L	78%	19%	2%	1%	Normal
20.	Normochromic normocytic	6.2x10 <sup>9</sup> /L	62%	30%		8%	Normal
21.	Normochromic normocytic	4.4x10 <sup>9</sup> /L	53%	28%	8%	11%	Normal
22.	Normochromic normocytic	4.4x10 <sup>9</sup> /L	53%	36%	8%	3%	Normal
23.	Normochromic normocytic	5.4x10 <sup>9</sup> /L	54%	32%	9%	5%	Normal
24.	Normochromic normocytic	5.2x10 <sup>9</sup> /L	57%	41%		2%	Normal
25.	Normochromic with anisopiokilocytic	4.4x10 <sup>9</sup> /L	61%	36%	2%	1%	Normal
26.	Normochromic with anisopiokilocytic	2.2x10 <sup>9</sup> /L	52%	38%	5%	2%	adequate
27.	Normochromic normocytic with rouleaux formation	5.4x10 <sup>9</sup> /L	37%	52%	5%	0	Normal
28.	Normochromic normocytic	5x10 <sup>9</sup> /L	62%	35%	2%	0	Normal
29.	Normochromic with slight anisocytosis	7x10 <sup>9</sup> /L	67%	22%	8%	3%	Normal
30.	Normochromic normocytic	3.6x10 <sup>9</sup> /L	65%	30%	4%	1%	Normal
31.	Normochromic normocytic	3.4x10 <sup>9</sup> /L	55%	39%	4%	2%	Normal
32.	Normochromic normocytic	6.5x10 <sup>9</sup> /L	69%	20%	7%	4%	Normal
33.	Normochromic normocytic	10.4x10 <sup>9</sup> /L	65%	30%	3%	2%	Normal
34.	Normochromic normocytic	4x10 <sup>9</sup> /L	60%	38%	1%	1%	Normal
35.	Normochromic normocytic	9.1x10 <sup>9</sup> /L	78%	15%	2%	5%	Normal

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