SINGLE-DOSE THERAPY OF TRICHOMONAL VAGINITIS WITH TINIDAZOLE

by

C. PHILLIPS,* F.R.C.O.G.

and

M. SHRIVASTAVA,** M.B.B.S.

Introduction

Effective single-dose treatment of sexually transmitted diseases such as trichomoniasis offers a real practical advantage. It does away with the problem of noncompliance by patients since the treatment can be administered in the clinic under direct supervision. Both, the patient and the consort can be so treated and even if they do not come for follow-up, the chances of cure are enhanced. It is for this reason that we investigated the therapeutic effect of tinidazole (Fasigyn*, Pfizer) in trichomoniasis when given as a single oral dose of 2 grams.

Patients and Methods

Thirty female patients from our outdoor clinic were selected for this study. All had symptoms suggestive of trichomonal vaginitis such as vaginal discharge and pruritus. In each case the diagnosis was confirmed by microscopic examination of fresh material collected from the posterior fornix for trichomonas vaginalis, both by a smear and by hanging drop preparation.

Tinidazole was administered as a single dose of 4 tablets, each containing 500 mg. No other treatment, either local or systemic, was given. Consorts were treated whenever possible, and sexual relations were proscribed during the period of observation. Clinical and parasitological examination were done before treatment and repeated on the first, eighth and eleventh post-treatment days. Besides recording the symptoms, signs and presence or absence of parasites in the vaginal secretions, side effects were noted if volunteered by the patient.

To evaluate safety of the drug, the following investigations were carried out before and after treatment. Red cell count, hemoglobin, total and differential white cell count, urinalysis, serum bilirubin, alkaline phosphatase, blood urea, S.G.O.T. and S.G.P.T.

The criterion of cure was elimination of the parasite from the vaginal secretion with complete or marked relief of symptoms and signs.

Observations

The age of patients varied from 21 to 50 years, 27 (90%) being in the age group 21-40 years. Copious vaginal discharge, often frothy and malodorous, and pruritus were the main presenting complaints. Two patients had other associated complaints, viz., dyspareunia in one and dysmenorrhea in the other.

All patients showed a uniformly good

*Professor & Head.

**Research Assistant, Department of Obstetrics and Gynaecology, Medical College, Amritsar.

Accepted for publication on 14-7-1975.

parasitological response. Examinations on the eighth and eleventh post-treatment days showed that the flagellates had disappeared from the vaginal secretions. The symptoms and signs improved rapidly in all patients and were completely relieved in 22 of them. In 8 patients there was marked improvement and only scanty vaginal discharge or mild pruritus were present on the eleventh day. Thus, all patients satisfied the criterion of cure and 100% efficacy was observed.

Consorts were treated in 8 cases but could not be examined after therapy. However, on the basis of our results it seems reasonable to assume that they too were cured.

Only 2 patients (6.6%) experienced mild side effects, viz. headache and giddiness, on the day of treatment. The complaints subsided within 24 hours without any treatment. It is noteworthy that bitter taste and nausea which are commonly seen with metronidazole were not experienced even after such a high dose of tinidazole. No abnormalities were detected in hemogram, urinalysis, blood urea or liver function tests.

Discussion

The results of this small study agree closely with the international experience in 251 patients reported by Swarz (1974) where a cure rate of 97.6% was obtained. Tinidazole thus seems to be a highly efficacious drug in trichomoniasis in a single dose of 2 grams. Metronidazole in a similar dose has given cure in 82-87% of patients (Csonka, 1971; Woodcock, 1972), i.e., about 15% less than with tinidazole.

The practical significance of single dose is obvious since it facilitates complete treatment of patients as well as consorts right in the physician's presence. On account of this, tinidazole should prove extremely useful in gynaecological and venereological clinics of hospitals and for mass treatment.

With respect to tolerations, although none of our patients complained of bitter taste and nausea these have been reported in about 3.3% of patients (Swarz, 1974). Thus, the incidence is quite low. An idea of the comparative toleration of tinidazole and metronidazole can be gained from the study of Weidenbach and Leix (1974) who used both drugs in a 2 g. dose. Side effects such as nausea, vomiting, constipation and pruritus occurred in 8 of 43 patients (11%) on tinidazole and in 12 of 21 patients (57%) on metronidazole. This difference is significant ($P<0.01$) and agrees with our own experience in the clinic with the recommended seven day course of metronidazole.

The higher efficacy of tinidazole is probably due to its unique pharmacological properties. It is about twice as active as metronidazole against trichomonas vaginalis in vitro Forsgren and Wallin, (1974). Dose for dose, it produces higher blood levels than metronidazole which decline more slowly Monro (1974). Furthermore, about half of tinidazole is excreted as active drug in the urine in contrast to metronidazole which is excreted mostly as inactive metabolites Garrod and O'Grady, (1973).

We conclude from our own experience and from review of the literature that tinidazole is a highly effective, well tolerated, safe and convenient drug for the treatment of urogenital trichnomoniasis and is preferable to metronidazole.

Summary

Thirty female patients of urogenital trichomoniasis were treated with a single

2 g. dose of tinidazole given orally. A cure rate of 100% was achieved. Mild side effects were reported by 2 patients (6.6%). The drug was well tolerated and no abnormal changes were observed in hemogram, blood urea or liver function tests.

References

1. Csonka, G. W.: Brit. J. Vener. Dis., 47: 456, 1971.
2. Forsgren, A. and Wallin, J.: Brit. J. Vener. Dis., 50: 146, 1974.
3. Garrod, L. P. and O'Grady, F.: Antibiotics and Chemotherapy, 4th Ed. p. 50-51, 1973. Edinburgh: Churchill Livingstone.
4. Monro, A. M.: Curr. Med. Res. Opin., 2: 130, 1974.
5. Swarz, H.: International experience with a new singls 2 gram dose of tinidazole (Fasigyn). Curr. Med. Res. Opin., 2: 181, 1974.
6. Weidenbach, A. and Leix, H.: Curr. Med. Res. Opin., 2: 147, 1974.
7. Woodcock, K. R.: Brit. J. Vener. Dis., 48: 65, 1972.