Trichomoniasis Treated with a Single Dose of Benzoylmetronidazole

R. F. ROOS

SUMMARY
A single 2-g dose of benzoylmetronidazole (Flagyl suspension) was given to patients with vaginal trichomoniasis in the second and third trimesters of pregnancy. The preparation was well tolerated, there were very few side-effects and the overall cure rate after 7 days was 97.6%.

For some 17 years, metronidazole has been the drug of choice in the treatment of trichomonal infection. In recent years, several investigators have shown the single-dose regimen of metronidazole (Flagyl) tablets to be effective. However, a number of patients have difficulty in ingesting tablets and an open, multiracial study was designed to assess the efficacy and acceptability of benzoylmetronidazole suspension given in a single dose of 50 ml (2 g).

PATIENTS AND METHODS
The patients were selected from among women attending the antenatal clinics at Addington and McComb Zulu Hospitals, Durban. Women in the first trimester of pregnancy were excluded. Patients in the second and third trimesters who were shown on microscopical examination of a smear taken from the vagina to be suffering from trichomoniasis of the genital tract were selected for the study. The smear was prepared from a drop of secretion removed through a speculum from the posterior fornix of the vagina. This was examined microscopically in the antenatal clinic. A second specimen was taken from the vaginal vault at follow-up examination, and this was cultured in modified Bushby's medium. One hundred and fifty-seven patients were studied. Of these, 31 failed to attend for the first follow-up examination and were excluded from the study, leaving 126 patients for analysis. Of these, 76 were in the second trimester and 50 in the third trimester of pregnancy. Table I shows the race and age distribution of the 126 patients.

Sixty patients were found to have concurrent vaginal moniliasis, for which treatment was prescribed.

Treatment
Patients found to be positive for vaginal trichomoniasis on direct smear microscopy were given a single 50-ml dose of metronidazole suspension in the clinic, under supervision. The patients were also given a similar dose of metronidazole suspension to be administered to their consorts on the same day.

After medication, patients were advised to abstain from sexual intercourse for at least 7 days and instructed to return for follow-up visits after 7, 14 and 28 days. At the first follow-up visit (7 days) patients were asked whether they had suffered from any side-effects such as nausea, vomiting, diarrhoea or rashes, which they thought might be attributable to the treatment.

At each follow-up visit, vaginal smears were taken and examined microscopically for the presence of Trichomonas vaginalis. A vaginal vault swab was also taken for culture in modified Bushby's medium.

In the event of recurrence, assessed on either the direct smear examination or a positive culture, patients were asked the following questions:
1. Was there any immediate or delayed vomiting after the initial dose?
2. Has sexual intercourse taken place since the last attendance?
3. If so, was it with the same partner?
4. Did the partner take the prescribed treatment?
Patients who had positive smears or culture specimens at any of the follow-up examinations were again treated and given treatment for the consort. The importance of treatment for both partners in order to prevent a recurrence was stressed.

Side-Effects
Minor side-effects were reported by 4 patients: 2 complained of diarrhoea, 1 complained of slight nausea, and 1 complained of a headache which she had developed on the day of treatment.

RESULTS
The results of the treatment in the 126 patients assessed are shown in Table II. No statistical differences were
found between the proportions of patients responding or failing to respond in the various ethnic groups.

Twenty-four patients had a recurrence of trichomoniasis. Only 3 smears were positive at the first follow-up examination (7 days). These were possibly reinfections in 2 patients, who admitted to having had sexual intercourse during the previous 7 days.

Only 1 patient was treated as an inpatient throughout the study. She was a diabetic and was receiving phenformin, phenobarbitone and chlorpropamide. She was treated with metronidazole suspension 3 times, but without success. The patient was found to have a concurrent Candida albicans infection.

DISCUSSION

Patients who had previously been shown to be suffering from trichomoniasis were considered cured if on direct microscopy of a vaginal swab and on culture of a vaginal vault smear, they were found to be free of trichomonal organisms 7 days after having received treatment.

The administration of treatment for the consort was unsupervised in this study. Owing to the stigma attached to venereal disease and the suspicion which might be aroused when treatment was prescribed for a partner who was symptom-free, doubt must exist as to whether the consort always received his treatment. It was not possible to determine whether the patients whose smears were positive after 28 days represented cases of reinfection or treatment failure. The unequalled good results reported by Keighley, who obtained a 98.3% cure rate in a closed prison community, would suggest that the former has been the case in most studies. Only 1 patient — a diabetic — had a persistence of the trichomoniasis despite repeated courses of metronidazole suspension. C. albicans and a mixed bacterial culture were found on repeated vaginal swabs taken from this patient. Treatment failures have been attributed to concomitant bacterial vaginitis and to poor absorption of metronidazole by some patients.

Bacterial studies were not performed on our patients; however, 47.6% were found to have a monilial vaginitis.

The successful use of a single-dose regimen of metronidazole tablets in the treatment of trichomoniasis has been demonstrated by a number of authors. No adverse effects have been reported with its use in pregnant women. However, in view of the high serum levels attained with the single-dose administration, it might be prudent to avoid this in the first trimester of pregnancy.

CONCLUSION

A single, 50-ml dose of metronidazole suspension (equivalent to 2 g) was found to be highly effective in the treatment of trichomoniasis. The suspension was pleasant tasting, easy to take and well accepted by the patients. The tolerance was good, especially considering that these were pregnant patients. Only minor side-effects were reported by 4 patients, and these may not have been related to the treatment. The recurrence rate showed a significant difference in the various ethnic groups. The single-dose treatment with metronidazole suspension is an effective, practical and acceptable alternative to the longer, conventional treatment courses.

I wish to thank Dr J. Vorster, Medical Superintendent of Addington Hospital, and Dr C. Orchard, Medical Superintendent of McCord Zulu Hospital, for permission to publish. The screening of all patients was done by Mrs S. Carboni and Mrs J. Baldwin. The benzoylmetronidazole was supplied by Maybaker Laboratories.

REFERENCES