2-day treatment of trichomoniasis with nimorazole

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Various treatment schedules for the treatment of trichomoniasis with both nimorazole (Naxogin) and metronidazole (Flagyl) have been suggested, and have had varying degrees of success. The routine treatment originally recommended by the manufacturers and used generally was 250 mg. nimorazole twice daily for 6 days and 200 mg. metronidazole three times daily for 7 days. The results obtained with these dosage schedules have varied with different workers: Cohen (1971) claimed almost 100 per cent success with nimorazole, Evans and Catterall (1971) found a much less satisfactory result, and the results obtained by Moffett, McGill, Schofield, and Masterton (1971) were intermediate between the two. McCann, Mahony, and Harris (1972) achieved more satisfactory results with the standard dose of metronidazole than with nimorazole. Different dosage schedules have since been tried by various workers in an endeavour to shorten the course of treatment. Morton (1972), giving a single 2 g. dose of metronidazole, had a recurrence rate of 17.8 per cent. in his female patients; with the same dosage of metronidazole, Csonka (1971) reported a cure rate of 82 per cent. Jones (1972), employing 2 g. nimorazole in a single dose, found that 93.7 per cent. of his patients were free from infection after treatment; with 1.5 g. in a single dose, the cure rate was only 74.1 per cent. Campbell (1972), using a dosage schedule of four 250 mg. tablets nimorazole immediately followed by a further four tablets at home, claimed a cure rate of 91.3 per cent.; a dosage schedule of four tablets immediately followed by two further doses each of four tablets at home resulted in a cure rate of 97.1 per cent.

The present investigation was carried out at the V.D. Clinics of the Royal Victoria Hospital and the Ulster Hospital, Belfast. The preliminary results were reported by McCann, Mahony, and Harris (1972).

Material and methods

150 female patients were investigated using the same diagnostic and follow-up techniques as previously des-

cribed (McCann, Mahony, and Harris, 1972). Wet smears of vaginal secretion and cultures in Feinberg-Whittington medium were examined. Five 250 mg. nimorazole (Naxogin) tablets were given to the patient in the clinic and a further three 250 mg. tablets were given to be taken at bedtime. The patient was seen if possible the following morning, and after examination the same dosage schedule was repeated. When a patient was unable to report on the second morning the remainder of the 2-day course was given to be taken at home with careful instructions. Patients were followed-up where possible for 3 months or longer, being seen at weekly and then monthly intervals.

The ages varied from 15 to 50 years. The marital status and frequency of other sexually-transmitted infections did not differ materially from those found in a previous investigation (McCann and others, 1972). As many as possible of the male partners were routinely treated with the same regimen.

Results (Table I)

Excluding the ten immediate defaulters, 140 patients were left for assessment and of these 135 (96.4 per cent) were either cured or had negative tests at the time of default. In the four cases classified as secondary failures, the histories suggested that three were almost certainly re-infections.

TABLE I Results of treatment in 150 cases

Result	No. of cases
*Cured	87
Primary failure	1
†Secondary failure	4
‡Default cure?	48
Immediate default	10
Total	150

*Patients who were followed up for 4 weeks or longer

†Patients whose tests were negative at the end of treatment but later became positive.

‡Patients who defaulted within 4 weeks of treatment but were *Trichomonas*-negative at the time of default

Eighty patients were seen on the second day of treatment and analysed to assess the result of 1 day's treatment. The results are shown in Table II.

TABLE II *Results in eighty cases after 1 day's treatment*

No. of cases	Laboratory tests	
	Microscopy	Culture
77	—	—
1	—	+
2	+	+

Thus, of eighty cases examined, 77 (just over 96 per cent.) were negative on direct microscopy and culture after 1 day's treatment. One of the positive cases was the primary failure mentioned already; the other two responded satisfactorily to treatment and both were finally classified as cured. The 77 cases in which both direct microscopy and culture gave negative results after the first day's treatment included the four cases later classified as secondary failures, but even allowing for these it is suggested that approximately 90 per cent of cases may well have been cured by 1 day's treatment of a total dosage of 2 g. nimorazole.

A small number of patients complained of only minor side-effects such as slight nausea; one patient vomited a short time after taking the first dose of tablets, but in spite of this a satisfactory result was obtained. One patient complained of diarrhoea.

Discussion

The highly satisfactory results obtained by this 2-day course are probably due to a number of factors: doubtless the higher blood concentration of the drug than that obtained in the 6-day course is important, but it is also likely that the results depend at least in part on the fact that the patient will remember to take a short 'crash' course of 2 days' treatment without omitting the tablets much more readily than she will remember to take tablets over a longer 6-day period, a point also made by Campbell (1972). Although 1 day's treatment may have resulted in a high cure rate, it was felt advisable to continue to give the second day's treatment.

Summary

The results of treatment by a 2-day course of nimorazole, consisting of five 250 mg. tablets in the morning

and three 250 mg. tablets at night on each day are described. 96.4 per cent. of 140 women who attended after treatment were either cured or had negative tests at the time of default. There were only one primary failure and four secondary failures, and in three of the latter re-infection was highly probable. Tests after 1 day's treatment suggested that over 90 per cent. of the patients may have been cured without further treatment.

I am indebted to Messrs. Carlo Erba (U.K.) Limited for their suggestions and assistance, particularly during the earlier part of this investigation, and also for supplying the nimorazole for a large part of the trial. My thanks are also due to my laboratory staff for their assistance in the microscopical and culture work entailed in the investigation, and in particular to my Clinic Supervisor, Mr. H. Dougan, whose help not only in the laboratory investigations but in other aspects of the work has been invaluable.

References

- CAMPBELL, A. C. H. (1972) *Brit. J. vener. Dis.*, **48**, 531
- COHEN, L. (1971) *Ibid.*, **47**, 177
- CSONKA, G. W. (1971) *Ibid.*, **47**, 456
- EVANS, B. A., and CATTERALL, R. D. (1971) *Brit. med. J.*, **4**, 146
- JONES, J. P. (1972) *Brit. J. vener. Dis.*, **48**, 528
- MCCANN, J. S., MAHONY, J. D. H., and HARRIS, J. R. W. (1972) *Ibid.*, **48**, 387
- MOFFETT, M., MCGILL, M. I., SCHOFIELD, C. B. S., and MASTERTON, G. (1971) *Ibid.*, **47**, 173
- MORTON, R. S. (1972) *Ibid.*, **48**, 525

Le traitement de deux jours de la trichomonase par le nimorazole

SOMMAIRE

On expose les résultats d'un traitement par une série de deux jours de nimorazole consistant en une prise quotidienne de 5 comprimés à 250 mg le matin et de 3 comprimés de 250 mg le soir. 96,4 pour cent des 140 femmes qui se présentèrent après traitement furent soit guéries, soit négatives aux examens pratiqués à la dernière visite. Il n'y eut qu'un échec primaire et 4 secondaires; parmi ces derniers, la réinfection fut hautement probable dans trois cas. Les tests après un traitement d'un jour suggèrent que plus de 90 pour cent des malades auraient pu être guéries sans traitement ultérieur.