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TREATMENT OF GONORRHOEA WITH DOUBLE DOSES OF DEMETHYLCHLORTETRACYCLINE

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In an earlier paper (2) the results were presented of treating 85 male gonorrhoea patients with single oral dose of 0.9 or 1.2 gm. of demethylchlortetracycline and of 34 others with two doses each of 1.2 gm. at an interval of 4–6 hours.

Using single doses of 0.9 gm. in 33 patients, the failure rate in those followed (based on a history of further sexual exposure) was 20 per cent. This compared with 36 per cent in another published series of 113 patients given the same dose by Sokoloff (1). The rate was somewhat less (13 per cent) in the 52 patients given the larger single dose of 1.2 gm. When two doses each of 1.2 gm. were used in 34 patients the overall failure rate was 14.8 per cent. However, most of the failures occurred in Negro patients who had a history of many more previous infections than did the others. If these were excluded, the failure rate with this schedule in the 21 non-Negro patients was only 5.6 per cent of those followed, whether the assessment was based on a history of further sexual exposure or on all recurrences within the first two weeks being classified as failures regardless of history. In order to confirm these findings it was considered, therefore, that the numbers treated in this way be enlarged to provide a valid sample.

This series has now been extended to include a total of 107 male non-Negro patients with acute uncomplicated gonorrhoea which forms the subject of this report.

Case Material

Of the 107 patients, 74 were born in the United Kingdom and the remainder were immigrants, 8 of whom were born in Eire, 6 in the U.S.A., 3 in Poland, 2 each in Cyprus, Israel and Italy and one each in Australia, Czechoslovakia, France, Germany, Greece, Malta, Pakistan, Persia, South Africa and Spain. Twenty-four were married and 83 were single: their average age was 26.8 years.

Fifty-four patients had had no previous venereal incident. The remainder had no less than 58 attacks of gonorrhoea (one rectal), 19 of non-gonococcal urethritis, 3 of pediculosis pubis, two each of syphilis, balanitis and herpes genitalis, and one each of condylomata acuminata, non-specific proctitis, scabies and tinea cruris, while 3 had been treated as contacts and 9 had been seen on account of anxiety concerning venereal disease—a total of 102 previous incidents.

The discharge had been present before treatment for 1–3 days in 82 cases, 4–7 days in 19, 8–14 days in 4 and 15–21 days in one while in one case the patient had not noted his discharge. Dysuria was noted by 75 patients.

The disease was apparently caught from a female stranger in 46 cases, from a female friend in 43, from the wife in 4, and from a male in 14 cases (a friend in 9, a stranger in 3 and unspecified in 2). The apparent incubation period was 1–3 days in

St. Mary's Hospital, London W. 2, England.

Follow-up	Followed	Satis.	Non-gonococcal infection	Re-infection	Suspected failure
0	107	–	–	–	–
1–3 days	93	19	1	–	1
4–7 days	72	14	4	–	2
8–14 days	52	6	2	–	1
15–21 days	43	3	–	1	–
22–28 days	39	5	1	–	–
1–2 months	33	9	2	3	–
2–3 months	19	2	1	1	–
over 3 months	15	10	2	3*	–
Total	93	68	13	8	4

* This includes one rectal infection.

34 cases, 4–7 days in 47, 8–14 days in 17, 15–21 days in 6, 21–28 days in 1, and was unknown in 2 cases.

The routine Wassermann and V.D.R.L. reactions were both negative in 104 cases, the Wassermann was negative and V.D.R.L. positive in two, and both tests were positive in one case.

Case Management

In all cases gonococci were demonstrated by Gram-stained urethral smear before treatment when routine serum tests for syphilis were also made. The patients were given four 300 mgm. tablets of demethylchlortetracycline under supervision in the clinic and four more to be taken home with instructions for them to be swallowed in one further dose after an interval of 4–6 (usually 5) hours.

The patients were told to re-attend for surveillance after 2–3 days and it was intended to see them again at approximately 1, 2, 4, 8 and 12 weeks from treatment. At each post-treatment visit the urethra was examined for the presence of discharge, a smear being taken if present, and the urine for haze and threads. It was planned to make at least one examination of the prostatic fluid during surveillance and a final serum test for syphilis at three months.

By no means all patients attended as requested, but sufficient time has elapsed before making the assessment to allow for all to have had the opportunity of being followed for three months.

Follow-up and Results

The follow-up and results obtained can be seen in the above-mentioned table.

Thus of 107 patients treated 93 (87 per cent) were followed. The status was satisfactory at the last visit in 68 patients, 13 were re-treated for a non-gonococcal infection and—as based on a history of further sexual exposure—8 were treated for re-infection and 4 (4.3 per cent of those followed) were suspected to have failed to treatment. Of the failures 3 of the 4 patients were born in the United Kingdom.

No satisfactory criteria exist to distinguish relapse from re-infection apart from a history of further sexual exposure. In this series, however, all recurrences occurring in the first two weeks were in fact considered to be failures as none gave a history of further sexual exposure.

The tablets were well tolerated except by three patients. Two of those vomited the second dose. Another did likewise and also complained of severe diarrhoea the same night. One of these three was a treatment failure.

It is concluded that demethylchlortetracycline in this dosage gives results in non-Negro patients comparable to those obtainable with single injections of aqueous procaine penicillin and that such treatment

offers an acceptable alternative for male patients with gonorrhoea who are suspected as being allergic to penicillin.

SUMMARY

One hundred and seven non-Negro male patients with uncomplicated gonorrhoea have been treated with two doses each of 1.2 gm. of demethylchlortetracycline at an interval of 4–6 hours.

There were only four failures in the 93 patients followed (4.3 per cent). All of the suspected failures occurred within two weeks of therapy and there were no suspected re-infections during this time.

It is considered that demethylchlortetracycline in this dosage gives results comparable to those obtained with single injections of aqueous procaine penicillin and thus offers an effective and acceptable alternative for male persons with gonorrhoea who are regarded as possibly allergic to penicillin.

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