RESIDUAL NON-GONOCOCCAL URETHRITIS : P.A.M. AND SULPHATHIAZOLE IN THE TREATMENT OF GONORRHOEA*

BY

C. D. ALERGANT

Consultant Venereologist, Liverpool Royal Infirmary

The spectacular success of penicillin in the treatment of acute gonococcal urethritis, the disappearance of dysuria in a matter of hours, the cessation of a profuse discharge in less than a day, the elimination of gonococci overnight, and the virtual absence of *gonococcal* relapse when a depot preparation is given in adequate dosage, has focused attention on one of the remaining problems in the management of gonorrhoea—the prevention and treatment of residual non-gonococcal or post-gonorrhoeal urethritis. The symptoms and signs of a residual urethritis are the persistence of urethral discharge, particularly prior to the first morning micturition, and the presence of urinary shreds containing pus or even a frankly hazy urine, and of course the absence of gonococci—the familiar chronic gonorrhoea or gleet of the older textbooks.

The purpose of the present investigation was to determine the effect on the incidence of residual urethritis of the administration of sulphonamides by mouth in addition to penicillin.

Procedure

A series of 120 successive cases of acute gonorrhoea in males attending the V.D. Department of the Liverpool Royal Infirmary were, after diagnosis by a Gram-stained smear, given a single injection of 300,000 units procaine penicillin in oily suspension containing 2 per cent. aluminium monostearate ("P.A.M."), and at the same time sulphathiazole 20 g. with instructions that the tablets were to be taken one four times daily starting immediately. All patients were instructed to refrain from taking alcohol whilst under treatment and to drink as much water or other bland fluid as they could. They were told to report back after either 48 or 72 hrs, and also that when they next attended and at all subsequent attendances they were to endeavour to have held their water for at least 2 hrs.

Patients re-attending after 48 or 72 hrs were examined for urethral discharge, and their urine was inspected and

its condition noted. In the absence of complications, patients were seen again on the 7th and 14th days after treatment. If on the 14th day shreds were still present in the urine and were seen to contain clumps of pus cells when examined microscopically, intra-urethral medication (most frequently anterior instillation of 0.25 per cent. AgNO₃) was given. In a few cases, additional treatment was thought to be advisable before the 14th day.

Tests of Cure

Tests of cure were not carried out until the urine had been free of pus shreds on two successive weekly visits after the 14th day. An intradermal injection of gonococcal vaccine (200 × 10⁶ organisms) was given and the patient was re-examined at the end of 48 to 72 hrs. For the test to be considered satisfactory, absence of urethral discharge, urine free from pus haze or pus-containing shreds, and a prostatic bead free from more than an occasional pus cell obtained after the passage of a full-sized curved sound were considered necessary.

Results

In analysing the results of treatment, it was decided to include only those patients who had attended regularly and who had successfully passed their test of cure. Patients who defaulted and were absent from observation for more than 2 weeks were necessarily excluded, as were patients whose tests of cure were carried out prematurely and those who were given additional treatment before the 14th day, or merely because of the presence of urinary threads, when no microscopical examination for pus had been made. Many patients defaulted and did not come to test of cure, and a few transferred to other clinics before completing treatment.

There thus remained 42 cases suitable for analysis. It was decided to analyse them with regard to two criteria :

(a) whether additional treatment was required or not.

(b) whether clear urine free from pus shreds was found on or before the 7th day.

* Received for publication July 17, 1952.

TABLE

COMPARISON OF INCIDENCE OF RESIDUAL URETHRITIS
IN PATIENTS TREATED WITH P.A.M. + SULPHATHIAZOLE
AND P.A.M. ALONE

Treatment		P.A.M. + Sulphathiazole	P.A.M. alone
Total Patients		42	56
Supplementary Treatment	Required	12 (28.6%)	17 (30.4%)
	Not required	30 (71.4%)	39 (69.6%)
Urine	Clear before 7th day	17 (40.4%)	21 (37.5%)
	Not clear on 7th day	25 (59.6%)	35 (62.5%)

The results are shown in the Table.

In order to compare these results with those in a similar series of cases treated with P.A.M. only, the records were examined of one hundred consecutive male cases of gonorrhoea attending the same clinic in the preceding 6 months who had successfully passed their test of cure. These were selected according to the same conditions as were observed in the P.A.M. plus sulphathiazole series, and 56 cases were found to be suitable for analysis. These results are shown in the Table.

This comparison shows that the results are substantially identical, the slight bias in favour of

the combined treatment being scarcely of statistical significance.

Discussion

The present investigation sheds no light on the aetiology of residual non-gonococcal urethritis, if indeed there is a single cause, nor has it pointed the way to prevention. Some cases are no doubt due to a dual infection, others to delayed resolution of primarily gonococcal processes. Why this should occur in some cases and not in others is not yet clear, but the problem is important enough, at least from a numerical point of view, to deserve further study.

Summary

A series of cases of uncomplicated gonorrhoea in the male treated with penicillin (P.A.M.) plus sulphathiazole is compared with a similar series treated with penicillin (P.A.M.) alone. It was found that the addition of sulphathiazole had no effect on the incidence of residual non-gonococcal urethritis.

Thanks are due to my senior colleague, Dr. A. O. F. Ross, for kindly advice and criticism, and to the nursing and clerical staff of the V.D. Department, Liverpool Royal Infirmary, for their willing cooperation.