TREATMENT OF NON-GONOCOCCAL URETHRITIS FROM THE POINT OF VIEW OF EFFICIENCY AND COST: STREPTOMYCIN WITH LONG-ACTING SULPHONAMIDES*

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In two previous papers (Jelinek, 1957, 1959), I have reported on patients suffering from non-gonococcal urethritis who had been treated with tetracyclines, oxytetracycline, and streptomycin combined with sulphonamides. The last method compared favourably with the then much more expensive tetracyclines and the question arose whether—after an interval of 5 years—the sulphonamides had stood up to the test of time and retained their efficiency. I also wanted to find out what results the newer types of sulphonamides would give, especially the very long-acting RO 4-4393, the whole dosage of which can be given to the patient in the clinic.

RO 4-4393, a Roche product (formula 4 sulphamido 5,6 dimethoxy-pyrimidine), has been extensively used in Africa, the Middle East, and South America for conditions as varied as leprosy, trachoma, meningococcal meningitis, staphylococcal pneumonia, and acne. It has been used therapeutically in some 11,000 cases and prophylactically in 3,000, in dosages up to 4 g. daily for 4 to 5 days, or in lesser doses up to 21 months. The side-effects were reported to be less than 2·5 per cent. The price has not yet been fixed, but is expected to be in the region of 2s. for one 0·5-g. tablet.

Material and Method

In this study, 559 patients with untreated non-gonococcal urethritis were each given one intramuscular injection of 1 g. streptomycin sulphate and an additional drug as follows:

No. of Cases	Drug	Dosage
66	Madribon	1 g. daily for 5 days
52	Durenate	1 g. daily for 5 days
141	Sulphamethoxy-pyridazine	1 g. daily for 5 days
147	RO 4-4393	One dose 1 g.
153	RO 4-4393	One dose 2 g.

Those on RO 4-4393 swallowed their tablets under observation in the clinic by the doctor or nurse.

The patients were followed up for 3 months. If at the end of that period they were free from signs and symptoms, no further treatment was required, their urine was clear, and prostatic fluids and serology were normal, they were considered to be cured.

Results

The results (Table) with sulphamethoxy-pyridazine were not as good as they had been in 1959 (Jelinek) when the cure rate was 82·3 per cent., whereas now it was down to 61 per cent. This is not unlike the figures Willcox (1962) obtained with similar treatment. Prebble (1962) had a cure rate of 80 per cent. with streptomycin and Madribon, which compares with 79 per cent. in the present series.

TABLE

Dosage Streptomycin 1 g.	No. of Cases	No. of De- faulters	No. Cured of Re- mainder	Cure- rate (per cent.)	Cost* (s)
+ Madribon 1 g. × 5 ..	66	23	34	79	5
+ Durenate 1 g. × 5 ..	52	9	23	55	5/6
+ Sulphamethoxy- pyridazine 1 g. × 5 ..	141	30	68	61	5/6
+ RO 4-4393 1 g.	147	43	66	63	5/-
+ RO 4-4393 2 g.	153	65	47	53	9/-

* Estimate approximate dependent on bulk-buying.

There were other puzzling features in these results which may cast some doubt on their value: in patients who received only 1 g. RO 4-4393 the cure rate was 10 per cent. better than in those who had 2 g.—yet the default rate was higher in patients who

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had 2 g. compared with those who had only 1 g. One can only speculate about the reasons for these paradoxical findings. Perhaps the numbers of patients in the groups investigated are too small to have any statistical significance or the whole evaluation of the therapy of non-gonococcal urethritis will have to be reconsidered (Fowler, 1958).

Side-effects.—There were no toxic effects with the conventional sulphonamides (Madribon, Durenate, and sulphamethoxy-pyridazine). With RO 4-4393 two patients vomited, one had diarrhoea, and one had dizziness, but all these reactions were transient and slight.

Although the overall results are not very good, the cost has remained low and the treatment comparatively safe. The recent release of cheaply imported tetracyclines from Italy and Poland seriously undercuts the price of the combined streptomycin with sulphonamides treatment.

Summary

A series of 599 patients with untreated non-gonococcal urethritis were given one intramuscular injection of streptomycin sulphate 1 g. and additional long-acting sulphonamides.

The single dose long-acting Roche product, RO 4-4393, gave results similar to other long-acting sulphonamides.

Overall results were not good (only just over 50 per cent. cure rate) and they were considerably worse than those obtained in a similar series five years ago.

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Traitement des urétrites non-gonococciques en fonction de l'efficacité et du prix, par streptomycine et sulfamides retard

RÉSUMÉ

Une série de 559 malades atteints d'urétrite non-gonococcique, n'ayant jamais été traités, reçurent une piqûre intramusculaire de 1 g. de sulfate de streptomycine et en plus des sulfamides retard.

La dose unique de sulfamide retard Roche RO 4-4393 donna des résultats semblables à ceux obtenus avec les autres sulfamides retard.

Dans l'ensemble les résultats ne furent pas bons (seulement un peu plus de 50% de succès) et ils furent pires que ceux obtenus dans une série semblable il y a 5 ans.