

THERAPY SPIRAMYCIN IN ACUTE GONOCOCCAL URETHRITIS IN MALES*

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Spiramycin was first isolated from *Streptomyces ambofaciens* by Pinnert-Sindico¹ in the year 1954 in France. Spiramycin is decidedly one of the best tolerated oral antibiotics as it does not modify the intestinal flora while tetracyclines oft do it. Gastric pain, vomiting, diarrhoea, drug fever and dermatitis medicamentosa are its occasionally reported side-effects. Like erythromycin and carbamycin, it is active in vitro; principally against *Neisseria* and Gram positive organisms (Durel)². Spiramycin does not show cross resistance with penicillin, streptomycin, chloramphenicol or tetracyclines. Cross resistance has however, been noticed with erythromycin. Fortunately this is more true in case of laboratory strains and is rarer in clinically isolated strains (Durel)². The activity of Spiramycin is very closely related to that of erythromycin.

In the year 1958, Mathieu N. and Faguet M.³ studied the action of spiramycin plus either chloromycetin or tetracycline or penicillin or streptomycin against *Staphylococcus aureus* in a liquid medium. According to these authors, synergism could be established in vitro between spiramycin and tetracycline but there was antagonism in case of penicillin and streptomycin while an additive effect was found between spiramycin and erythromycin.

Although better tolerated, spiramycin needs to be given in higher doses and cannot be injected. It is not very sensitive to hydrochloric acid and the oral route is, therefore, the best method for its administration.

In 1960 Maniar⁴ et al have reported that, after subcutaneous administration of a single dose of spiramycin to mice, it was present in various organs, at higher concentrations than erythromycin over a period of 24 hours. They found that after the prolonged treatment, spiramycin accumulated in the tissues whereas erythromycin did not. Spiramycin by virtue of its high and prolonged tissue concentrations should according to R. Sutherland⁵ be considered as an antibiotic of its own right, rather than as a member of the erythromycin group of antibiotics.

SPIRAMYCIN IN GONOCOCCAL URETHRITIS

Spiramycin has been found to be effective in gonococcal infections by eminent venereologists like Siboulet⁶, Durel and Willcox. Willcox⁷ had given 4-12 G.

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spiramycin orally in one or two days to 31 cases of gonococcal infections in males. He recorded only one failure and this too was regarded as reinfection.

A. Siboulet and P. Durel of the Saint Louis Hospital, Paris, has reported one minute treatment of gonorrhoea. As soon as the diagnosis was made they gave a single dose of 2.5 G. spiramycin orally. 764 males and twenty females were included in this series. The authors reported a cure rate of 97.4%. Failures in this series were treated with 1-2 mega units of penicillin. In this series of 784 cases, a single oral dose of 2.5 G. spiramycin was excellently tolerated. Only 21 patients complained of slight gastric heaviness. Neither vomiting nor diarrhoea was reported. Considering these favourable reports, we thought of conducting a short-term trial in the skin dept. of the G. T. Hospital.

MATERIAL AND METHODS

Our study group comprised of 32 male cases of the acute gonococcal urethritis. Diagnosis of these cases was based on finding intracellular Gram negative diplococci in the urethral smears. We had no facilities for culturing the organisms. As soon as the diagnosis was established, every patient received 3 Gm. of spiramycin (12 capsules) as a single oral dose. The patient was asked to attend the O. P. D. after 3 days for re-examination. He was advised to abstain from coitus and alcoholic drinks. He was instructed not to urinate for about 3 hours before presenting for checkup. After 3 days every patient was examined and questioned for the presence of the urethral discharge and his urine was examined. Every time clinical as well as urine examinations were done and V. D. R. L. tests were carried out. Eighty percent of our cases we could follow for one week only.

FINDINGS AND OBSERVATIONS

In the group, thirty cases had contracted the disease from prostitutes while only two cases gave history of contacts with the girls staying in the neighbourhood. The average duration of discharge prior to the onset of the spiramycin therapy was four days. In this series, the average incubation period was of six days.

Spiramycin could stop the urethral discharge completely within 3 days in 28 cases. In all of these 28 cases, all the urine examinations and V. D. R. L. tests were negative. 4 cases failed to respond to spiramycin. In these cases urethral discharge persisted after 3 days and urethral smears revealed plenty of pus cells. All these cases responded well to pro. penicillin 8 lakhs I. M. daily for 3 days.

SIDE EFFECTS

In this series, one patient complained of giddiness two hours after the intake of spiramycin capsules while another two cases reported 3-4 loose motions on the subsequent day.

SUMMARY AND CONCLUSIONS

In this trial we could record an apparent cure rate of 87.5% while the single dose schedule failed to cause improvement in 12.5% cases. On the whole, the

patients tolerated the drug well. Although the strains of gonococci are getting increasingly resistant to penicillin or to streptomycin, Roiron⁸, Rasetti-Nicol and Durel have shown that there has been no change in sensitivity to spiramycin. All the 61 strains tested were sensitive in vitro to less than 1 mcg. per ml. of spiramycin.

In our opinion, spiramycin is a very suitable drug for penicillin resistant cases of gonococcal infections.

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