# INJECTABLE SULPHONE

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We have now concluded a two-year study of injectable sulphone and have reached the following conclusions:—

Twenty lepromatous and ten tuberculoid cases were selected. Two lepromatous patients died of intercurrent infections and one absconded.

**Drug:** The drug used was Avlosulfon soluble.

**Dosage:** (Each c.c. of Avlosulfon is equivalent to 200 mgm. of DDS.) First month, ½ c.c. twice weekly. Second month, 1 c.c. twice weekly. Third and subsequent months 1½ c.c. twice weekly.

The maximum dose reached therefore equalled 600 mgm. DDS weekly. Our oral doses usually amount to 1,200 mgm. weekly, but the smaller dose by injection was decided on (1) because it was considered that all of the drug injected would be absorbed, and (2) larger doses would be more painful, as the drug is given intramuscularly.

**Duration.** The project was planned to last two years and the results were assessed at the end of the second year.

**Presulphonisation.** Most of the lepromatous cases had previously been treated with sulphones, four for a period of five years and the rest for periods not exceeding three months. The tuberculoid cases had received very little previous treatment as they were recent admissions.

**Toxicity.** One patient developed exfoliative dermatitis but responded to cortisone and treatment was resumed within three months. There was no evidence of renal or liver damage. Adjuvant iron or vitamin B therapy was not found necessary.

**Reactions.** With the exception of Erythema Nodosum Leprosum (ENL), which we regard as a normal reaction in lepromatous cases receiving sulphones, and which occurred in nine of the 17 lepromatous cases, no reactions occurred.

**Adjuvant Treatment.** As is our practice, the macules occurring in tuberculoid cases were treated with intradermal injections of ethyl esters of hydnocarpus oil.

**Results: Tuberculoid.** Nine of the ten tuberculoid cases have been discharged. Six were discharged after three months' treatment, two after 10 months' treatment, and one after 13 months. One patient is still positive. He entered the project with positive

skin smears and is probably a borderline type. One patient had a reaction in his macules prior to starting the project and smears were 3+. The lesions subsided rapidly and showed no more bacilli.

**Lepromatous.** Three of the lepromatous cases previously treated with sulphones for a period of five years became negative and were discharged. One is still positive though there is no evidence of clinical activity. All the cases which had little previous treatment are still positive, but the average bacteriological index has dropped from 12.5 to 5.8.

These figures may be compared with a previous project when the following results were obtained after two years.

Group 1. Oral Sulphone. Bacteriological index dropped from 12.6 to 8.8.

Group 2. Oral Sulphone plus INH. Bacteriological index dropped from 14.9 to 9.5.

Group 3. INH plus Streptomycin. Bacteriological index dropped from 12.8 to 8.7.

Group 4. Streptohydrazid. Bacteriological index dropped from 12 to 9.

The injectable sulphone therefore showed the best results.

So far as clinical changes are concerned there were:—

| | |
|---|---|
| Marked improvement ... ... | 7 |
| Slight improvement ... ... | 8 |
| Stationary ... ... ... ... | 2 |

**Comment.** So far as the results are concerned we are satisfied that Avlosulfon Soluble is as good as, if not better than, oral diaminodiphenyl-sulphone (DDS). It has the disadvantage that it has to be injected and, because of this, patients became very "needle shy" before the end of two years and begged to be taken off injections. For routine use I therefore recommend oral DDS.

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