## TUBERCULOSIS IN SULFONE TREATED PATIENTS

The sulfone derivatives promin and diasone, found promising as chemotherapeutic agents in experimental tuberculosis in animals, proved disappointing when—and as—employed in the treatment of pulmonary tuberculosis in man. In leprosy they proved quite otherwise, provided their administration was persisted in long enough. It has been said that Faget, under whose administration promin was first applied in leprosy, felt that their failure in tuberculosis might have been due to too short periods of medication.

Since pulmonary tuberculosis is not at all uncommon in persons with leprosy it seemed within the bounds of possibility, if not quite probable, that an answer to the question indicated might be found in such patients treated with sulfones for long periods—barring the possibility that the coexistence of two mycobacterial diseases affects the situation in some fundamental manner. A cursory survey of reports of sulfone treatment of leprosy has revealed little on the subject.

Muir <sup>1</sup> told of a patient who had had the left arm amputated because of tuberculosis of the elbow, whose tarsal bones of the right foot were involved, and who had large tuberculosis glands on both sides of the neck. "Under diasone the foot condition cleared up rapidly, the swinging temperature became normal, and the glands shrunk in size."

<sup>&</sup>lt;sup>1</sup>Muir, E. Preliminary report on diasone in the treatment of leprosy. The Journal 12 (1944) 1.

Faget and Pogge,<sup>2</sup> mentioning the fact that tuberculosis is a frequent and serious complication of leprosy at the national leprosarium, went on to say:

The development of tuberculosis may be regarded as an additional indication for the institution of promin or diasone treatment. Thus far ten tuberculous patients have been placed on promin or diasone treatment in the hope that both diseases might be favorably influenced by the same drug. In two of them the tuberculous disease advanced during the course of treatment but in the majority of the others an improvement was shown by serial roentgenograms.

The available information being so meagre the question, "Do leprosy patients stand active treatment with the sulfones, and, if so, what happens to the tuberculosis," was put to the heads of the two institutions in which the sulfones have been used longest and on the largest scale, namely, the U. S. Federal Leprosarium at Carville, Louisiana, and the Sanatorio Padre Bento at São Paulo, Brazil.

Dr. F. A. Johansen, medical officer in charge at Carville, says:

"Leprosy patients with pulmonary tuberculosis are able to take active treatment with the sulfones as well as those who do not have tuberculosis. It has been our impression that the lung lesions in tuberculosis do improve on this therapy. That has been noted in patients in whom the disease is not too far advanced, but we do not know whether this is due to the drug itself or not. We are at present conducting a study of tuberculosis in our patients with the end in view of determining whether or not the sulfones have been helpful to that condition as well as to the leprosy."

Dr. Lauro Souza Lima, of Padre Bento, replied that there are so few patients with tuberculosis in that institution (only three) that he had passed the inquiry on to the Asilo-Colonia Pirapitingui, where there is a special tuberculosis service. Dr. Francisco Ribeiro Arantes, director, supplied the following comment by Dr. Heitor Ferreira Prestes, tuberculosis specialist of that institution.

"Although the period of observation has been short, about two years, it does not appear that tuberculosis patients treated with sulfone experience improvement of their pulmonary condition. The serial radiographic control of tuberculosis lepers in whom collapse therapy was not possible, and who were given the rest cure along with a sulfone, shows in the majority no

<sup>&</sup>lt;sup>2</sup> FAGET, G. H. & POGGE, R. C. Treatment of leprosy with diasone; preliminary report. New Orleans Med. & Surg. J. 98 (1945) 145.

regressive tendency of the pulmonary lesions. For about three years the sulfones have been given to almost all the patients of this leprosarium. It might therefore be supposed, if these drugs have any notable effect on human tuberculosis, that the number of tuberculosis patients would be very small; also, that in patients taking sulfones regularly for long periods of time, no fresh tuberculosis involvement of the lungs should develop. Of 30 patients in this leprosarium positive for the Koch bacillus—i.e., with the so-called open form of tuberculosis—12 have been treated with promin between two and three years, including 3 recent cases of minimal severity. One fact seems to emerge in this whole matter, namely, that the sulfones have no effect from

the point of view of prophylaxis of tuberculosis."

The matter is evidently not settled. One thing does seem certain, namely, that it is not necessary to withhold sulfone treatment because of the existence of complicating tuberculosis, or that treatment has sometimes to be discontinued because of activation of that condition, as was so often the case with the chaulmoogra drugs. Further investigation, as undertaken at Carville, seems desirable in various parts of the world to determine whether on the whole sulfone treatment is or is not beneficial to complicating tuberculosis as well as to the primary disease.

—H. W. W. ade