

MEDICINE

Streptomycin for TB

Limited suppressive effect has been obtained, but no one knows what final answer will be. Warning comes not to hope for too much.

► STREPTOMYCIN, penicillin-like medical weapon which proved strikingly effective in controlling tuberculosis in guinea pigs, has now been given to 34 human patients suffering from this disease.

The results of this first trial of the remedy in human tuberculosis are reported by Dr. H. C. Hinshaw and Dr. W. H. Feldman, of the Mayo Clinic and Foundation in the *Proceedings of the Staff Meetings* of the Mayo Clinic.

A "limited suppressive effect" on the disease, especially in some of the more unusual types of tuberculosis, was obtained through streptomycin treatment.

Many of the cases in which streptomycin was tried were apparently hopeless. In these the drug brought about some improvement and perhaps prolonged the lives of the patients. Yet nowhere in the report is there any statement to justify hailing this new drug as a swift and sure cure for tuberculosis.

An unusual feature of the report is the inclusion of a paragraph indirectly addressed to lay persons. In this the scientists, who obviously restrained their report to the most conservative statements, urge the layman who may hear of it to adopt "the same cautious frame of mind." In other words, not too much hope should be aroused by the results so far.

"No one as yet knows what the final judgment will be concerning the effect of streptomycin on clinical tuberculosis," they state.

Care in a sanatorium and collapse therapy, proved and effective methods of treating tuberculosis, should "in no instance" be abandoned for treatment with streptomycin or other antibacterial substances whose value has not yet been conclusively shown.

Very much in favor of streptomycin is its safety, as shown by study of the 34 patients to whom it was given by injection into the muscles every three hours and in some cases for several weeks without interruption. Most patients complained of feeling a little sick and of aching muscles and pain where the injections were made. The pain is no worse than that produced by penicillin. Since

most of the patients to whom streptomycin was given had little chance for rapid recovery, if any, they did not mind the discomfort of the new treatment that might help them. As more purified lots of streptomycin have become available, there have been less severe reactions to it.

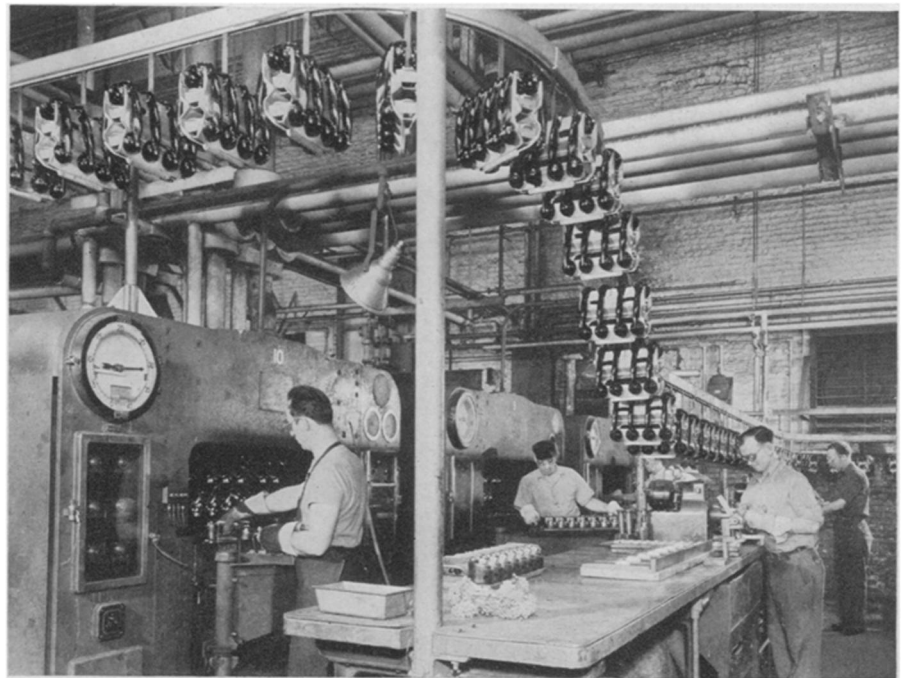
Streptomycin seems to have the best effect in patients with unusual and particularly dangerous forms of tuberculosis, such as tuberculosis of kidneys and bladder and the type known medically as miliary tuberculosis. In miliary tuberculosis the disease is not limited to the lungs but is spread through the body by the blood stream and usually is rapidly fatal.

In two patients with this form of tuberculosis, one of whom also had tuberculosis of the kidneys, "unmistakable and striking improvement" of the tuberculous condition of the lungs appeared in X-ray

pictures. Improvement in the general condition of the patients, however, did not parallel that shown in the chest X-rays, and the physicians believe the disease has become localized in some inaccessible regions of the body.

Encouraging results were obtained when streptomycin was given to four patients with tuberculosis of the bladder or kidneys. Each of these had only one kidney, the other having been removed because of the tuberculous condition. Each was excreting tuberculosis germs before streptomycin treatment was started. This stopped within two to four weeks and no germs have been found up to four months after the drug was stopped.

Some of the patients with tuberculosis of the lungs, on the other hand, although they seem to respond to streptomycin, apparently are better only so long as they are taking the drug. In some cases the tuberculous process is reactivated promptly after treatment is stopped. Extensive, progressive lung damage known to be of recent origin tended to improve promptly in a manner resembling the natural processes of healing. The drug, however, did not seem to have any rapidly effective curative action in these cases.



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