Medical Report on Experiments on Auschwitz Inmates Intentionally Infected with Typhus, Testing a Therapeuticum Developed by I.G. Farben, Auschwitz 1943

Auschwitz, 8 February 1943

NOTES ABOUT TREATMENT WITH PREPARATION 3582 (IGF) IN CASES OF TYPHUS

Altogether 50 patients were treated with preparation 3582.

Treatment was started as quickly as possible after the diagnosis had been ascertained. The treatment lasted for 5 days, during which time each patient got 2 tablets, 3 times a day. As in most cases the preparation in tablet form did not agree with the patients, the same dose was later dissolved in half a litre of hot water. But the reaction of the patients was again unfavorable. Vomiting occurred, often quite violently, and this weakened the patients considerably. To avoid this, the preparation was introduced by clysma. This way of administering it had also to be abandoned, as it caused violent and often painful diarrhea with daily defecation often up to 15 times. The preparation could be administered only in one tolerable way. The patients were given one tablet 6 times a day in wafers with plenty of hot water to follow. The daily dose amounted to 3 grams, i.e., altogether 15 grams during the whole treatment.

It was observed in general that the preparation did not agree very well with the patients. They complained of a bitter taste and a burning sensation on the tongue as well as on the palate, which remained for some time after it had been administered. In two cases even a swelling of the lips was observed. In 78 per cent of the cases the patients reacted to the preparation by vomiting, so that a great part of the preparation was vomited and only a small part of it remained effective in the body. In one third of the cases a slight passing diarrhea was observed.

15 out of the 50 typhus cases treated with preparation 3582 died, i.e., roughly speaking 30 per cent. 22 per cent after completion of the treatment, 8 per cent

during the treatment. In these 15 lethal cases death was caused in 6 cases by myocardial weakness, in 6 cases by toxic cachoxy, in 2 cases by complications in the brain (Myelitis and Encephalitis) and in one case excessive temperature, the origin of which could not be determined. The complications observed among those who survived were in one case parotitis and in another meningitis.

The typical symptoms of the disease in the kidneys with albumin in the urine, small number of leukocytes and Erythrocytes as well as other pathological ingredients in the sediment, i.e., granulated cylinders and epithelia remained before and after the treatment.

It can therefore be stated in general that the preparation has no effect on the process of the illness. In spite of the sinking of the temperature after 8-10 days of illness, all the general symptoms remained, convalescence took a long time. Dryness of the tongue, the unpleasant bitter taste in the mouth, the want of appetite and an accelerated pulse with muffled cardiac sounds remained even for a week after the fall of temperature. We can come to the conclusion that the decrease of the inflammatory symptoms does not depend on the fall of temperature.

Report about Akridin

First experiment

Following a suggestion of the *I.G. Farbeindustrie A.G.*, the Akridin preparation 3582 was tested as typhus-therapeuticum during the time between 10 January and 20 February 1943. Since the infection of the persons selected, especially of the control group with rickettsia prowasoki (Op. No. 226 from the Robert Koch Institute in Berlin) was not completely successful, an extensive and critical judgment was not possible.

The infected person who did get sick was given 3-6 tablets at 025 daily according to instructions. The tolerance was very low. With one exception, all patients complained about severe nausea with vomiting (up to 6 times a day). Diarrhea also occurred.

If the patients continued to vomit regularly after taking the tablets, further doses were not given and treatment was continued in the usual way, by chest and hand compresses, drugs affecting heart and circulation, etc.

An obvious, quick and final decrease of temperature, as promised in the circular of the *I.G. Farbenindustrie*, has been observed in no case. Even if a certain therapeutical effect of the akridin preparation cannot be denied, and unqualified success could never be waited for, since the low tolerance of the product made it nearly always necessary to discontinue the treatment.

Second experiment:

A further experiment was supposed to take place beginning on 31 March 1943, this time with akridin-granulate and rutenol. Both preparations were supposed to be tolerated better than noridin 3582. This experiment failed, because no typical illness developed.

Third experiment:

After a reliable method of infection by intravenous injection of fresh blood of typhus-patients was found, 39 persons were infected on 24 April 1943:

15 for the group akridin granulate

15 for the group rutenol

9 for control purposes.

After an approximate incubation period of 6-7 days, all test cases got sick with medium-severe to severe typhus.

The tolerance of Rutenol was therefore on the whole better. Even if this time contrary to the first experiment with akridin 3582 when it seemed that a favorable influence upon the illness could be expected from the preparation if its tolerance was good, no relieving effects or shortening effects and no lowering of the temperature could be observed. The unusual severeness of the infection may have to be blamed.

The death rate was:

With the control group	55.5%
With the akridin granulate group	53.3%
With the rutenol group	53.3%

Source : Yad Vashem Archives TR2\N11\1009\NI2768.