

Serum Hepatitis

Boiled Serum Has Achieved Immunization

HOSPITAL TRIBUNE

Monday, April 19, 1971

Hospital Tribune Report

NEW YORK—Active immunization against serum hepatitis has been achieved by inoculation with a boiled preparation of blood serum containing serum hepatitis virus, a team of investigators from the New York University Medical Center announced here.

Boiling a serum containing the MS-2 (serum hepatitis) strain of virus for one minute at 98° C. destroyed its infectivity without affecting its antigenicity, according to Dr. Saul Krugman, chairman of the Department of Pediatrics at N.Y.U. This contrasted with findings on blood serum containing infectious hepatitis virus, which was rendered both noninfective and nonantigenic by boiling.

A single inoculation of the serum hepatitis preparation in distilled water gave enough protection to prevent some cases and modify others, while individuals who received two injections not only were protected against hepatitis but also developed antibodies against the disease.

Results Appear Meaningful

Although the number of patients tested so far is small, the results appear meaningful when compared with other data, Dr. Krugman remarked.

"The absence of hepatitis in all four susceptible individuals who received two inoculations of boiled MS-2 serum and its absence in five out of 10 who received one inoculation is impressive when compared with a 96 to 100 per cent attack rate when susceptible individuals were exposed to infectious MS-2 serum in the past," he said.

Passive immunity to serum hepatitis was also achieved, using a special lot of hepatitis B immune gamma globulin supplied by Dr. Alfred M. Prince, of the New York Blood Center, Dr. Krugman said.

Fifteen susceptible subjects were exposed to infectious serum, and four hours later five were inoculated with standard gamma globulin and the other 10 were given the hepatitis B gamma globulin. All 10 subjects in the latter group were protected against hepatitis, while only two of the five who received standard gamma globulin were protected.

The tests were carried out at the Willowbrook State School, Staten Island, N.Y. Other members of the investigating team were Dr. Joan P. Giles, of N.Y.U., and Dr. Jack Hammond, director of Willowbrook.