

UROLOGY

Viral Diseases Related

► A RESEARCHER'S CONCLUSION that a common virus causes infectious mononucleosis along with two types of hepatitis—infectious and serum—was made in Atlantic City.

Other scientists told SCIENCE SERVICE, however, that the claim needs further proof.

Vern S. Bolin, virologist of the Bolin Laboratories, Glendale, Ariz., who described his work with five volunteers from the Arizona State Prison at Florence, Ariz., said other experiments also suggest that the hepatitis infectious mononucleosis virus, called HIM for short, may cause some leukemias.

All five volunteers, Mr. Bolin told a meeting of the Federation of American Societies for Experimental Biology, were injected with serum hepatitis virus and became acutely ill with serum hepatitis 91 to 130 days later. Virus was found in blood samples taken at regular intervals and tested in tissue culture.

At the same time, Mr. Bolin and his co-workers isolated viruses from the livers of other persons who had died of serum hepatitis. One virus isolated from the liver of a three-year-old child who died of hepatitis also met the test for mononucleosis.

"This virus," Mr. Bolin said, "now maintained in tissue culture for two years, is

serologically identical with the isolates from volunteers."

Mr. Bolin made tests to determine if the HIM virus was related in any way to more than 60 other viruses that cause communicable diseases such as polio, ECHO, Cocksackie and Adenovirus, among others. He found no relationship. He also used the HIM virus test on serum from 30 cases of viral hepatitis collected in Japan, and from 31 cases of U. S. Navy personnel from three different states, and found antibodies in every one of the 61 samples.

Another research group from Baylor University School of Medicine recently reported the finding of virus-like particles in the blood of acute cases of both infectious mononucleosis and leukemia, Mr. Bolin pointed out. He said it is noteworthy that two different groups working independently should come upon basic findings for the suspected cause of several different diseases.

Working with Mr. Bolin on his study were Dr. John B. Alsever, medical director of Southwest Blood Banks, Inc., of Scottsdale, Ariz., which supported the research; Dr. Frank D. Mann, pathologist at St. Joseph's Hospital, Barrow Neurological Institute, Phoenix, Ariz., and Barbara S. Chase.

• Science News Letter, 87:260 April 24, 1965

MEDICINE

Drug Helps Asthmatics

► HIGH DOSES of potassium iodide—300 milligrams given three times a day—decreased asthma severity in tests that involved 100 children at the Childrens Asthma Research Institute and Hospital, Denver, Colo., researchers reported.

Potassium iodide has been used in asthma treatment for centuries but it was restudied to determine more exactly the treatment value, dangers and best doses in children.

Although the high doses did not interfere with thyroid gland function after 12 weeks of treatment, one child developed goiter and had to be taken off the drug. After the tablets were stopped, however, the gland returned to normal size. Three other children developed acne severe enough to cause the treatment to be stopped after which the acne improved.

The children were given different doses of potassium iodide for 12 weeks at a time, during which they received all other forms of treatment according to their need. The amount of anti-inflammatory steroids such as prednisone could be reduced while the children were taking the potassium iodide, which was of particular value because the steroids often slow down skeletal growth in children, and doses must be kept as slow as possible.

Dr. W. P. McCann of the pharmacology department, University of Alabama Medical Center, Birmingham, collaborated with Drs. C. J. Falliers, E. F. Ellis, H. Chai and N. Yzd of Denver on the research, which was

reported at the annual meeting of the Federation of American Societies for Experimental Biology at Atlantic City.

Because long-term asthma treatment is hard to evaluate, the researchers concluded that additional studies would be needed to see if intermittent therapy would provide results with fewer undesirable effects. They emphasized that potassium iodide has definite value in treating some asthmatic children, but that the best dose levels for each child require careful study. Doses as low as 100 milligrams a day are likely not to be adequate.

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PUBLIC HEALTH

Heart Disease Deaths Highest in the U.S.

► THE UNITED STATES has the highest death rate in the world from heart and blood vessel diseases. Second in line is Finland, followed by Australia.

South Carolina has the highest cardiovascular mortality rate of any state, while New Mexico has the lowest.

In 1900, cardiovascular diseases accounted for 20% of all deaths in the United States. Today they account for 54.5%, claiming nearly a million lives annually. These figures were compiled by the American Heart Association.

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Questions

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CONSERVATION—What is a method of flood control often used in the highlands? p. 270.

MEDICINE—How many cases of polio were reported in 1964 in the United States? p. 258.

What is the first substance identified as capable of repairing radiation damaged cells? p. 259.

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PUBLIC HEALTH—What disease may be transmitted to children by pet monkeys? p. 265.

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