

MEDICINE

New Serum Successful in Treating Undulant Fever

Inoculation with Material Produced From Goats Is New Weapon Against Animal-Borne Disease

TWENTY undulant fever patients quickly restored to health and normal activity by the use of a new serum constitute the proud record reported by a group of Cincinnati medical scientists to the American Society of Tropical Medicine.

The serum was produced from goats after inoculating them with chemically treated suspensions of the organisms that cause the disease. Drs. W. B. Wherry, A. E. O'Neil and Lee Foshay of the University of Cincinnati College of Medicine and the Cincinnati General Hospital are the group responsible for this advance in the fight against undulant fever.

The disease is a serious, long-drawn-out affair which may end fatally. It is caused by an organism known by various names, *Bacterium melitensis* being a correct technical title. Neuralgic pains, swelling of the joints, recurring attacks of fever, weakness and anemia are unpleasant features, and particularly unfortunate for the sufferer is the tendency for the disease to become chronic, with frequent relapses and very slow recovery.

Goats, cows and pigs suffer from the disease, and it is from these animals, particularly from unpasteurized milk of the first two, that man contracts undulant fever. The relation between the animal disease and the human disease and the value of pasteurization of milk as a preventive measure were established by Alice Evans of the U. S. Public Health Service. In the course of her research she herself suffered a severe attack.

Treatment of undulant fever has remained unsatisfactory until the development of the anti-serum by the Cincinnati scientists.

So far the serum has been given to only twenty-six patients, a small number, Dr. Foshay pointed out in his report. But the results in over two-thirds of the cases have been "extremely gratifying" and the lack of success in

six cases was partly due, he believes, to the fact that in the first cases the serum used was not strong enough or not given in large enough doses or given too late.

To be successful, it is important that the serum be given before the end of the fourth month of the illness, Dr. Foshay emphasized as a result of experience with these first twenty-six patients. Delay in starting anti-serum treatment was responsible for some of the failures, he said.

In the twenty patients who were benefitted by the serum, the fever stage was reduced from the usual weeks-long period to an average of only nine days. Other symptoms disappeared within from one to six weeks, with an average of fifteen days. The patients were able to resume their customary activities in from eight days to two months, with an average of three weeks. They have been free from relapse for periods ranging from four months to twenty-nine months, or over two years.

The success with this serum has encouraged the scientists to try to produce from the horse a more powerful and reliable anti-serum.

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PSYCHOLOGY

"Brain-Trusters" Are Not Congenitally Superior

IN THIS day of changing social and political systems, it is reassuring to find scientific justification for our American democracy, based as it is on the doctrine that all men are created equal and are therefore entitled to equal shares in the privileges and responsibilities of government.

Speaking before the American Association for the Advancement of Science at Pittsburgh, Dr. David Wechsler, chief psychologist of Bellevue Hospital, New York, made a strong case for democracy.

The doctrine of equality does not

mean, and nobody today would insist it to mean, that there are no mental and physical differences, Dr. Wechsler said. No one doubts that some men are physically stronger or have more retentive memories or better mechanical ability than others. But ruling out the obvious defective and the rare genius, the differences between men are too small to affect the average person's capacity to take part in the social and political institutions that govern his daily life.

Dr. Wechsler presented results showing men to be after all pretty nearly equal in a great variety of functions ranging from strength of grip and memory span to polishing spoons and knitting sweaters.

"It is not true," Dr. Wechsler concluded from his tests, "that there is inevitably a small percentage who are congenitally so superior to others as to make them the inevitable rulers of their fellowmen. Furthermore, even if this were the case, there is little evidence to show that the ruling classes are exclusively or even preponderantly composed of such individuals."

He doubts whether the I.Q.'s or mental ages, if obtainable, of the "brain-trusters" in the various governmental departments would turn out to be greater than those of "their less conspicuous predecessors" in similar offices. What distinguishes the "brain-trusters" from their predecessors in office is probably not a difference of native ability but a difference of attitudes toward social problems.

An aristocracy of brains might be as oppressive as an aristocracy of brawn, or even more so, Dr. Wechsler said, pointing out that the mischief produced by dictatorships does not hinge on whether they are autocracies of brain or brawn but on the fact that they are autocracies, that is, forms of government wherein the average man and hence human beings in general are negligible and contemptible entities.

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PHYSICS

New Method Helps Recover Radioactive Materials

SCIENCE has turned junkman and recovered thousands of dollars of valuable radioactive products from which gamma rays, so useful in cancer therapy, may be obtained.

Prof. George B. Pegram and Dr. John R. Dunning of Columbia University reported to the physical section