

PSYCHIATRY

Atropine for Mentally Ill

Poisonous drugs may be future weapons in the fight against mental disease. Cases of recovery from mental illness after acute physical illness suggested their use.

► POISONOUS drugs such as belladonna may be the weapons of the future against mental disease.

Improvement in 77 of 188 mentally sick patients as a result of doses of one such drug was reported by Dr. Gordon R. Forrer of the Ypsilanti, Mich., State Hospital at the meeting in Detroit of the American Psychiatric Association.

Eighteen patients showed marked improvement immediately after treatment. The improvement seemed to continue for two to three months after the treatment had been stopped.

The drug Dr. Forrer used is atropine, or belladonna, as it is sometimes called. This is the same drug which doctors drop in the eyes before examination for eyeglasses and which is also given, in small doses, to relieve spasm as in asthma, constipation and whooping cough among other conditions.

Dr. Forrer gave 30 to 60 times the conventional dose to the mental patients by injection into the muscles. The patients be-

came somewhat restless, confused and approached a semi-comatose state. Each patient, on the average, got 20 treatments. There were no serious complications and no permanent organic damage, though one patient got pneumonia and one had a return of ear trouble.

Atropine itself may not be the poisonous drug finally selected for treatment of mental disease, if any such drug does become accepted treatment. Dr. Forrer stated that several other drugs, promising because of their poisonous properties, are being investigated.

The idea that poisonous drugs might be helpful in mental sickness is based on the observation made from time to time that recovery from mental illness might occasionally follow another, acute illness occurring during the mental illness. Such recovery or temporary improvement, it was thought, might be due to the poisoning during the acute illness.

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an enemy could eat it as easily while it was pretending to be dead.

Another mystery of the 'possum concerns its disappearance for several million years from America. The 'possum was here 70 million years ago, disappeared, then reappeared. Unlike most other mammals, the 'possum has changed little in 70 million years.

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MEDICINE

Virus Mystery Period Probed

► A 25-MINUTE mystery period in the life of certain viruses is being probed by University of Chicago scientists in Chicago. They hope solution of the mystery will give clues useful in the fight against infantile paralysis and other virus-caused diseases.

The mystery is what happens during the 25 minutes after bacteriophage, which is a virus, infects a bacterium, which is a slightly larger micro-organism, or "germ."

After the mysterious 25 minutes during which nothing seems to be happening, the bacterium suddenly bursts open and as many as 1,950 new viruses are set free.

Probing this mystery are Drs. Frank W. Putnam, Earl A. Evans and Lloyd Kozloff. Dr. Putnam reported in the journal, SCIENCE (May 5), that he used a force 20,000 times stronger than gravity to measure bacteriophage which is so small that 250,000 living units of it could be crowded into a single inch.

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WILDLIFE

Captive Opossums Bred

► THE OPOSSUM, as familiar to the American scene as log cabins and maple syrup but regarding whose personal life there remains much mystery, is finally being bred in captivity.

This feat is being accomplished by Harold C. Reynolds, of the University of California Museum of Vertebrate Zoology.

Previous attempts to breed the opossum have been abandoned, the reasons for failure being the animal's cannibalism and its secretive, nocturnal personal habits.

Mr. Reynolds, who now has third generation opossums grown in captivity, is believed to be the first to have witnessed the birth of an entire litter of the animals, and he apparently is the first who has been able to observe the animal's behavior extensively.

The scientist has found that many of the folk tales about opossums are not true. It is not clever and cunning—indeed, it is extremely stupid. It cannot swing by its tail. The mother 'possum cannot arch her tail over her back in order for the young to ride holding with their tails to hers.

Mr. Reynolds believes that the opossum may become an extremely important laboratory experimental animal, now that the technique of breeding in captivity has been mastered.

The opossum is a marsupial, Reynolds

pointed out. The young, still in embryological stages, are easily available in the mother's pouch. Therefore it should be possible to conduct many more varied embryological studies with this animal, because of the easy access to the embryo.

Mr. Reynolds said that the embryo-like young leave the mother's womb after about 13 days gestation. At this point the young are about half an inch long and weigh only 13/100ths of a gram. They make their way to the pouch, where they remain for about 60 days, being weaned about a month later. Sometimes the litter is so large that some of the young are destined to die. In the pouch there are but 13 teats, and only this number of young can survive. Mr. Reynolds has witnessed the birth of as many as 21 in a litter.

So small are the young at birth that one would weigh only 1/14,000th as much as the mother. If a human baby were proportionately smaller at birth he would weigh only one-seventh of an ounce.

Mr. Reynolds says it is a puzzle as to how the primitive 'possum has been able to survive. He speculates that it may be a superior ability to adjust its body temperature and to the fact that it apparently has few natural enemies. The animal's penchant for "playing 'possum" would help little, since



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