

Drug Useless to Aged

► PROCAINE, or H3, the "rejuvenating" drug used by Prof. Anna Aslan at the C. I. Parhon Institute of Geriatrics, Bucharest, Romania, has been put into a preparation called Gerioptil by a German drug company.

The drug also contains a variety of vitamins and vitamin derivatives, but tests showed that Gerioptil failed to improve the mental deterioration of six elderly women.

Injections of sterile water were given to six of 12 senile patients at the same time the other six were given 12 injections of Gerioptil during one month. The test administrator did not know which group was being treated. However, the water did more good than the drug. The injections were given intramuscularly.

Dr. M. D. Cashman, assistant psychiatrist, and T. G. G. Lawes, clinical psychologist, Lancaster Moor Hospital, Lancaster, England, who report their study in the British Medical Journal, Feb 25, 1961, said the results of the test "cast very grave

doubts upon the claims made for the preparation."

Four out of the six patients who received Gerioptil deteriorated, while five out of six untreated patients improved.

Only one of seven memory tests showed improvement among the treated patients. This exception was memory for design. In one other test, for memory of personal and current information, treated patients tied with the untreated.

In the remaining five, the investigators said, the untreated patients showed more favorable response. These five tests included orientation, mental control, logical memory for stories, digit span and associate learning.

The Bender gestalt test of figure-drawing, in which the patients were required to copy a few apparently simple geometric figures with no time limit, showed no evidence in favor of Gerioptil.

The scientists said that although the numbers tested were small, an "effect contrary to the claims made for Gerioptil seemed to have occurred."

• Science News Letter, 79:159 March 11, 1961

MEDICINE

Radiation Surgery Tried

► HOPE FOR preventing cancer regrowth after surgery is seen in the use of a new radiation technique.

It will take a year or two to determine accurately what the effect of the treatment will be, but Dr. William H. Sweet, neurosurgeon at Massachusetts General Hospital, Boston, believes the technique will prove more effective than previous treatments of this type.

The new technique consists of opening the skull surgically to expose cancerous tissue to radiation touched off by a beam of neutrons emitted in the process of atomic fission in the reactor. The method was developed at the Massachusetts Institute of Technology and the hospital.

Eight patients with malignant brain tumors have been treated by neutron therapy at the M.I.T. nuclear reactor.

Several years ago Dr. Sweet and his collaborators conceived this type of therapy and administered treatments at the Brookhaven National Laboratory reactor, but the treatment could only be given from the side. This prevents opening the skull and necessitates the use of a stronger neutron flow.

The M.I.T. therapy room lies directly beneath the reactor, which permits a vertical neutron beam to be directed into the top of the patient's skull.

Treatment is based on the fact that certain boron compounds concentrate within cancer cells in the brain after being injected into the blood stream. The normal brain tissues form a barricade against the boron and, when neutrons emitted by the reactor are directed into the tissue area in which the boron is concentrated, they cause the boron atoms to give off alpha particles that have energy of 2.4 million electron volts.

Since the alpha particles travel only about four-millionths of an inch, their destructive power is limited almost exclusively to the cancerous tissue. Neighboring healthy brain tissue is relatively untouched.

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Do You Know

United States motor vehicle *travel* in 1960 totaled 720 billion miles, 46% of which was on urban streets.

Passenger *cars* in the U.S. averaged 14.3 miles per gallon of gas in 1960, commercial vehicles 4.6 miles per gallon of fuel.

The tuatara, the only surviving member in the world of a very primitive group of *reptiles*, is found in New Zealand.

Accidents in the United States took nearly 1,000,000 lives and caused an economic loss of \$100 billion during the last 10 years.

Nearly nine percent of the new cases of *tuberculosis* in the U.S. are due to organisms resistant to one or more of the major drugs, the percentage of resistance being highest to streptomycin.

Ninety-three million persons under 60 years of age in the United States have received at least one shot of polio *vaccine*.

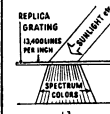
The electric *eel* can produce up to 600 volts, or more current than a battery of equal size.

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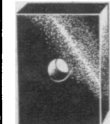


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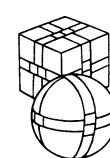


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