MEDICINE

Local Anesthetic Treatment Helps Arthritis Sufferers

Not a Cure, But It Gives More Than Temporary Relief And Enables Patients to Regain Use of Crippled Parts

CRIPPLED, pain-racked arthritis sufferers may be freed of pain and helped to return to work and normal lives with the aid of local anesthetics, Dr. Otto Steinbrocker of Bellevue Hospital, New York, reported to the Congress of Anesthetists.

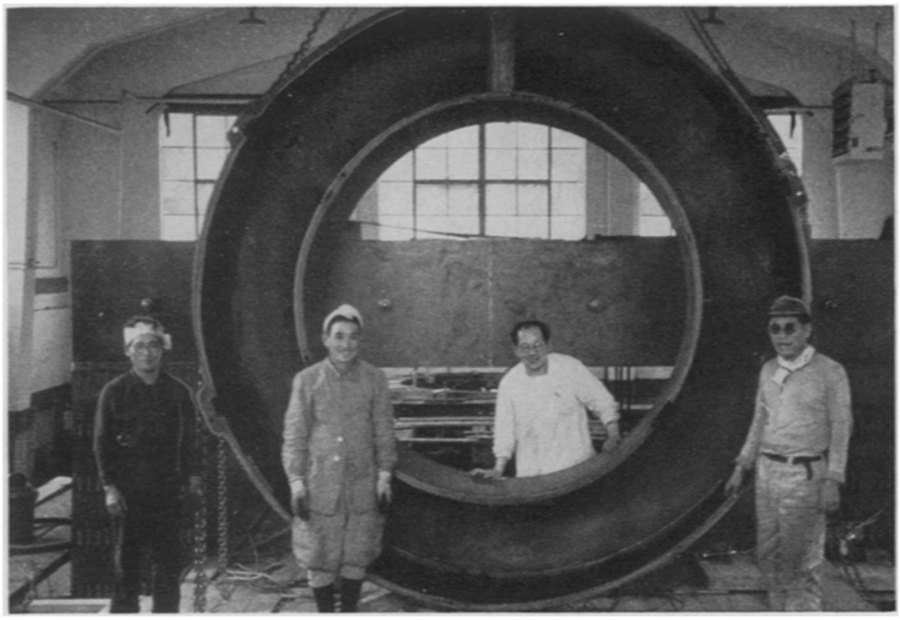
The treatment consists of injections of procaine, local pain-relieving agent akin to cocaine. The procaine is used in an oily solution, which makes the effect last longer. It is injected either into the painful areas or into the nerves alongside of the spine, which supply the painful joints.

The treatment is not a cure for arthritis, Dr. Steinbrocker emphasized, because it does not reach the underlying cause of the arthritis. It is palliative treatment, but the relief from pain is more than temporary and because the patient is free of pain, he is able, by massage and graded exercise, to get back the use of his hands, legs or other affected parts.

If the treatment is started early, deformities can be prevented, Dr. Steinbrocker said, because these deformities are largely due to contraction of muscles to prevent pain on motion.

Dr. Steinbrocker has used the method to treat 134 patients but has only been able to trace 19 of these for learning final results. Of these, 17 were adequately or completely relieved from four months to two and one-half years after treatment.

The treatment is especially useful for acute conditions such as sprains. It shortens the time the patient must be laid up after a sprained ankle, for instance, by about two-thirds.



JAPANESE BUILD CYCLOTRON

Here are Japanese scientists with one of the tanks in which will be immersed the 24-ton coils of the cyclotron they are building at the Institute for Physical Research in Tokyo. Dr. Yoshio Nishina, in charge of the erection of the huge atom smasher, which will be a duplicate of the one now under construction at the University of California, had the assistance of Prof. E. O. Lawrence, inventor of the cyclotron, who is at the University of California.

Surgeons Attack Epilepsy

Cure of epilepsy by surgical operation on the brain was reported to the American College of Surgeons by Dr. E. Jefferson Browder of the Brooklyn, N. Y., Hospital. Sixteen out of 40 patients were cured by this operation which Dr. Browder demonstrated. Another 12 were improved, and 12 were unimproved.

The figures may not sound impressive but surgeons pointed out that surgeons have never been able to do anything for epilepsy in the past and that consequently this work and similar work by a few other surgeons elsewhere is a new and promising approach to the age-old problem of this ailment.

The operation is performed only on patients between 18 and 45 years of age and on those in this age group whose fits show some starting point such as movement of a thumb or hand. This starting point gives the surgeon an idea of which part of the brain may be diseased and causing epileptic fits. The exact area is determined by the patient's response to an electric current passed into the brain along a fine wire probe. Then an inch or two of brain in this region is cut out.

Science News Letter, November 5, 1938

BOTANY

Green "Scum" Has Value As Aquatic Source of Food

MOST of us, even though we may claim no great degree of botanical knowledge, can recognize the lesser plants, fungi and mosses, when we see them. But mention algae, another great group of the humbler, flowerless growths, and we feel a bit lost. We aren't quite sure what algae are.

To bring popular knowledge of this important but neglected province of the plant kingdom up even with that of plants in general is the task which Prof. L. H. Tiffany of the University of Illinois has set for himself in his new book, *Algae: the Grass of Many Waters* (Thomas).

Algae aren't grasses, in the strict botanical sense of the term, the author points out. They rank far below grasses in the hierarchy of systematic botany, indeed sharing with fungi the lowest rung of the evolutionary ladder. Yet styling them "grass" is justified from the ecological point of view, because of their function in the life-complex of the waters. If it is true on land that all flesh is grass, it is equally true in the water that all fish is alga.

Algae form the fundamental food in