

MEDICINE

New Infantile Paralysis Treatment Gets Approval

Sister Kenny Method Using Hot Packs To Relieve Spasm With Early Attempts at Motion Confirmed in Trials

INFANTILE paralysis patients in the future may recover with a shorter period of pain and with less crippling and deformity as a result of a revolutionary change in treatment which was approved by the National Foundation for Infantile Paralysis at its second annual medical meeting in New York.

The new treatment, known as the Sister Kenny method, was developed by Miss Elizabeth Kenny, whose nursing title in Australia is "Sister." Instead of using splints and casts to keep muscles at complete rest, with the idea of thus preventing further deformity, Sister Kenny uses hot packs to relieve painful muscle spasm, and as soon as this is accomplished, she starts teaching the patients to think of and gradually to achieve motion in the affected muscles.

Satisfactory results with this treatment at the University of Minnesota Medical School were reported to the Foundation, which sponsored this trial of the Sister Kenny method.

Support for abandonment of immobilization in treatment of infantile paralysis appeared also in studies reported by several of the scientists whose work the Foundation has supported.

Shortening and distortion of limbs, contrary to previous opinion, are not caused by the pull of unbalanced powerful muscles on paralyzed ones. Rather they are caused by contraction of a severely paralyzed group of muscles which has been allowed to remain in one position for any length of time, Dr. Arthur Steindler, of the State University of Iowa, reported.

Frequent motion and use of muscles, within the limits of fatigue and without splinting, have given as good results, in patients treated so far, as any other method, he reported, although the number of patients is small compared with the number treated by immobilization.

Keeping a leg motionless produces the same kind of changes in the muscles of that leg as does removal of the nerves controlling the muscles, Dr. Donald Young Solandt, of the University of Toronto, discovered in animal studies.

Restricting the activity of infantile paralysis patients may delay recovery, it appears from findings in animals reported by Dr. Harry M. Hines and associates at the State University of Iowa.

In the animals, restriction of activity failed to enhance recovery of paralyzed muscle and Dr. Hines found some evidence that it might be delaying recovery.

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Muscles Flash Light

SIGNALS flashed in a bulb by the electrical energy of transplanted muscles are helping infantile paralysis victims learn to walk, Dr. Dallas B. Phemister, of the University of Chicago, reported.

The muscle electric flash signal is used, he explained, for patients of fairly low mental aptitude. Such patients usually are unable to get muscle recoordination clues from either a sense of position or from watching the knee-cap being retracted. (*Turn to page 380*).

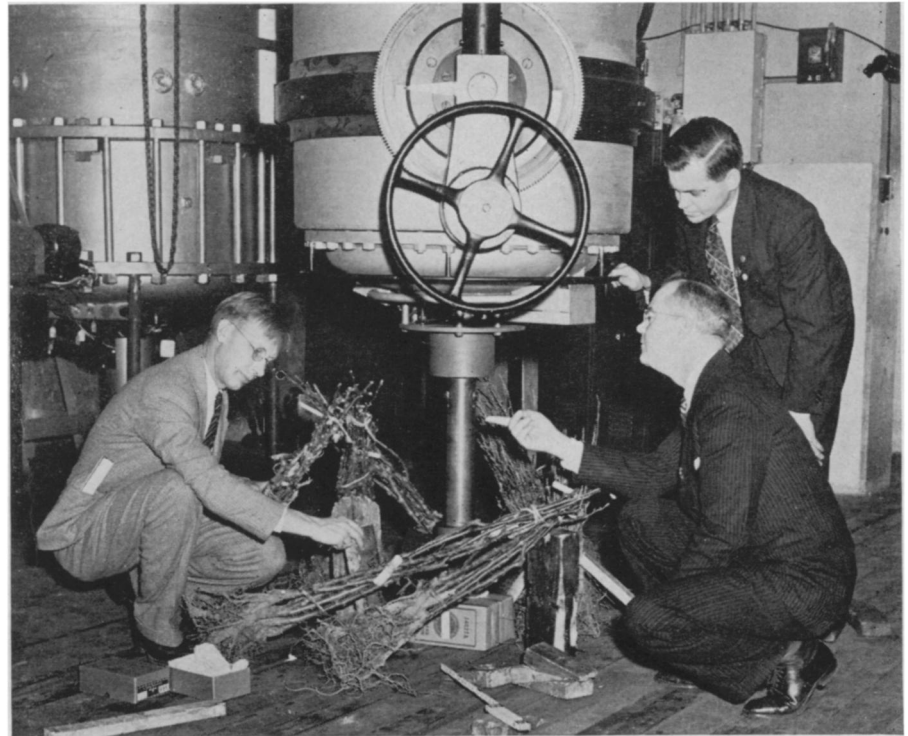
GENETICS

Million-Volt X-ray Used to Change Heredity

X-RAYS at million-volt intensity were used on fruit trees, berry bushes and vegetable seeds in the laboratories of the General Electric Company, to change the physical set-up of the heredity-bearing cells and produce, if possible, new varieties of plants.

The trees and bushes were exposed to the million-volt bombardment for an hour, the seeds for intervals stepped up from 12 to 60 minutes. They have been planted by genetical researchers at the New York State Experiment Station at Geneva. The exposures were conducted by Dr. Bernhard Nebel of Cornell University, assisted by Dr. E. E. Charlton and C. D. Moriarty, of General Electric.

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CHANGING CHROMOSOMES

By bombardment with million-volt X-rays, it is hoped the chromosomes of these young apple trees will be altered so that future fruit may have better color, size, flavor and resistance to disease. Dr. Bernhard Nebel, of Cornell University (left) is shown here with Dr. E. E. Charlton and C. D. Moriarty, of the General Electric Laboratories where the experiment is taking place. The box beneath the tube contains seeds.