MEDICINE

Treatment Goes to War

The Sister Kenny method of caring for infantile paralysis is now being used to treat various bone and joint injuries in the Army.

➤ THE SISTER KENNY treatment of infantile paralysis has gone to war. Captain Vernon L. Hart, M. C., U. S. Army, reports (*Journal, American Medical Association,* Nov. 21), that he is now using this method at the Station Hospital, Camp Cooke, Calif., in treatment of various bone and joint injuries and specifically in treating "various internal derangement injuries of the knee joint."

Following an injury to a knee joint, he points out, muscle spasm, mental alienation of muscle and incoordination of muscle function are found. It is these three symptoms which Miss Kenny recognizes and treats in infantile paralysis patients.

"These three symptoms can be demonstrated and they must be treated and relieved because they are the pathologic basis for deformity and disability," Capt. Hart says with reference to knee joint injuries.

Torn cartilage or ruptured ligaments may require subsequent surgical treatment but Capt. Hart says the Kenny treatment should be applied first. In the case of broken knee cap or leg bone, on the other hand, immediate surgical repair is necessary before the Kenny treatment can be started.

Muscle spasm is present in the muscles that bend the knee immediately after injury, Capt. Hart points out. Certain muscles are shortened because of the pain reflex spasm and a deformity of the knee joint is the result. The muscle in spasm cannot relax and allow itself to lengthen and any attempt to lengthen it only aggravates the spasm and increases the deformity. The temporary contracture and deformity may become permanent, he warns, unless the condition is treated.

First step in the treatment, therefore, is to relieve the spasm. This is done by putting the patient to bed with his leg in proper position and the application, as advised in the Kenny treatment, of moist heat to the involved muscles and tendons.

Within two to four days, pain, spasm and deformity are usually relieved and the patient is then taught to be aware of the involved muscle and its normal action on the joint. Following this, he is gradually retrained in the use of the muscles.

"Patients with the common types of internal derangement are usually ambulatory after a week or ten days, when they have regained normal voluntary control of the quadriceps motor mechanism," Capt. Hart reports. "For several days they walk with the aid of a chair, cane or crutch and after two or three weeks return to duty. I have been impressed with the unusually high percentage of normal knees following this system of treatment and the extremely small number of patients with recurrence of disability."

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PUBLIC HEALTH

Place of Residence Affects Tooth Decay

➤ THE BEST teeth in the nation, at least among children and men of military age, are found in Arkansas and the South and Southwest generally, Dr. Bion R. East, dentist and public health professor of the College of Physicians and Surgeons, Columbia University, stated at the meeting of the American Public Health Association in St. Louis.

The worst teeth are found in New England, Dr. East reported after studying draft records of the 1918 Army, the 1863-1864 Federal Army and the preliminary figures from the 1940-1942 draft. The 1918 records showed that when measured by the Army's standards, the teeth of the men of Vermont were 35 times poorer than those of Arkansas.

Missouri rated high in excellence of its men's teeth in 1918. Study of draft rejections then showed that only three states in the nation had lower rejection rates for dental defects than did Missouri.

"The probability that the reported differences were not due to chance," Dr. East stated, "is strengthened by similar results obtained in a survey made of U. S. Navy recruits of 1934. In that survey the New England men, when compared with those of other sections of the country, also had the most evidence of past and present tooth decay. Arkansas, the state with the lowest rejection rate for dental defects in the draft of 1918, had the best record in this respect in the Navy's survey of 1934.

"Preliminary reports from the drafts of 1940-42 suggest that marked variations in the magnitude of the rejection rates for dental defects will again prevail among the different states. The indications are that New England will again lead the rest of the country in the percentage of men rejected for military service for poor teeth and that the men of the southern and southwestern states will again have the low rates. Similar trends in the distribution of tooth decay were found in dental surveys of children residing in different states."

Reasons for the relation between tooth decay and place of residence were not given by Dr. East, but his findings coincide with earlier findings of U. S. Public Health Service scientists on the relation of fluorine in the drinking water, mottled enamel and tooth decay. Fluorine in drinking water and the mottled enamel it causes are both prevalent in the southwest, but the mottled enamel teeth rarely decay. New England water supplies, so far as they have been tested, are fluorine-free.

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ASTRONOMY

First Photo of Nova Obtained by Amateur

➤ A CHECK has revealed that the first photographic record of Nova Puppis obtained at the Mt. Wilson Observatory and probably in the entire United States was secured not by an astronomer but by Anthony Wausnock, who acts as steward at the "Monastery" where the scientists live while working with the telescopes on Mt. Wilson. The photograph was taken on Tuesday, Nov. 10, from 4:10 to 4:35 a.m. PWT.

Mr. Wausnock has made it his hobby to photograph the lights of the cities below Mt. Wilson. By accident the photograph taken on the morning of Nov. 10 happened to include the nova, which appears as a bright streak on the upper left hand corner of the plate. (The stars show as streaks since they were moving across the sky during the 30 minutes the plate was exposed). The second brightest star in the sky, Canopus, shows as a bright streak near the center of the picture. A comparison of the two streaks indicates that Nova Puppis looked nearly as bright as Canopus when the exposure was made.

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