

MEDICINE

Relieve Arthritic Joints

► **CHRONICALLY INFLAMED** arthritic joints can be relieved, but not cured, by injecting cortisone-related steroids, or hormone drugs, directly into the joint.

Repeated injections, up to 142 times in one case, had no apparently harmful effect, three doctors report in the *Bulletin of Rheumatic Diseases*, Jan., 1961.

Some 4,000 patients at the University of Pennsylvania Arthritis Clinic, Philadelphia, received more than 100,000 injections during a ten-year period, Drs. Joseph L. Hollander, Ralph A. Jessar and Ernest M. Brown Jr. report. Reduction in swelling and relief of pain was found in 90%.

The physicians state that relief varies and is often temporary. Because the treatment can be repeated in long-term cases of the most serious types of arthritis, rheumatoid

arthritis and osteoarthritis, however, it is especially valuable.

The steroid compounds used in the study included hydrocortisone, prednisolone, methylprednisolone, triamcinolone and dexamethasone.

Other forms of therapy must accompany steroid joint injections when severe types of arthritis are treated, the physicians emphasize. They say it is important to keep patients under continued observation and to avoid the drugs when infection in the joint is suspected.

In about seven-tenths of one percent of the cases, instability developed in repeatedly injected weight-bearing joints. Regular X-ray examinations and protection of these joints during steroid injection treatment may help detect and avoid this danger.

• Science News Letter, 79:85 February 11, 1961

MEDICINE

Mouse Leukemia in Rats

► **FOR THE FIRST TIME**, the same virus has caused leukemia, cancer of the blood, in two different kinds of animals.

The malignant blood disease has been produced in rats by the same virus that causes leukemia in mice, Dr. Ludwik Gross of the Veterans Administration Hospital, New York City, reported.

Dr. Gross told a symposium on *Frontiers in Cancer Research*, held in Boston to celebrate the 150th anniversary of the Massachusetts General Hospital, that he had

found different types of leukemia can be caused by the same virus.

The two principal types of leukemia are lymphatic and myeloid. Dr. Gross has discovered that lymphatic leukemia virus could, under certain conditions, produce myeloid leukemia, thus proving that different types of the disease can be caused by the same virus.

Dr. Gross said that the mouse leukemia virus can be grown in tissue culture. In the mouse, it runs in certain families from



LOOK MA, TWO HEADS—A 14-inch two-headed bull snake, found by a farmer near Delphos, Kans., is being studied by scientists at Kansas State University's Fairchild museum. Heads join about an inch down the spine.

one generation to another. In many mice it may be latent, but it either can produce leukemia itself or be prompted to produce it as in radiation, or X-ray.

Dr. Gross in 1951 excited the cancer research world with his inoculation of newborn mice with a cell-free extract of leukemia tissue which later was proved to be a virus.

• Science News Letter, 79:85 February 11, 1961

SURGERY

Cotton Sponge Found Instead of Lung Cancer

► **THE INTACT REMNANT** of a cotton gauze surgical sponge was removed from a former soldier's chest cavity after remaining in the upper edge of his right lung for 14 years.

Among the possible causes of the enlarging mass seen in successive X-rays was malignant neoplasm, or cancer, it was reported in *The New England Journal of Medicine*, 264:172, 1961.

The soldier had been shot while lying in a prone position, in battle in April, 1945. The bullet pierced his right shoulder, traveled through the right chest and passed through his liver, and was removed from the abdominal cavity.

A chest operation was later performed to drain the right lung, after which the series of lung X-rays showed a gradually enlarging dense shadow in spite of the patient's apparent good health.

Reporting the case were Drs. John S. Trombold, Alvin C. McCuiston and H. William Harris, all of the University of Utah College of Medicine and Veterans Administration Hospital, Salt Lake City.

Although it is unlikely that similar cases will be seen in the future because of present use of radiographic sponge markers, the physicians said, an object in the chest cavity must be considered in diagnosing certain patients with an enlarging mass near the edge of the lung.

They said the cause of progressive enlargement of the mass is not known but it "may have been due to progressive fibrosis caused by the gradual breakdown of the sponge and local dissemination of the fibers."

• Science News Letter, 79:85 February 11, 1961

PUBLIC HEALTH

Farm Health Costs Higher Than All Others

► **MEDICAL COSTS** averaged \$92 a year per person for farm families in which farm operators were 65 years of age or older, a nation-wide survey by the U. S. Department of Agriculture and the Bureau of the Census has shown. Medical costs for all others were \$59.

These and other findings are reported and analyzed in *Agriculture Information Bulletin 235*, issued by the United States Department of Agriculture. Copies may be obtained from the Office of Information, United States Department of Agriculture, Washington 25, D. C.

• Science News Letter, 79:85 February 11, 1961