

## MEDICINE

# Hormones Against Cancer

Relief to breast cancer patients in the inoperable stage of the disease is being given by sex hormones, promising new weapon against the condition.

► BREAST cancer patients who are beyond the aid of surgery now are obtaining relief from a new medical weapon, sex hormones.

Evidence of the relief-giving ability of the hormones was obtained in a study made of 105 women patients by Drs. F. E. Adair, R. C. Mellors, J. H. Farrow, H. Q. Woodard, G. C. Escher, and J. A. Urban of New York. They report their study in the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* (Aug 13).

Synthetic male sex hormone was given to 70 of these patients by injections into the muscles three times a week for one month or longer. Of 58 patients suffering with pain, 44 obtained temporary relief. Improvement was also noted in appetite; there was a feeling of well-being and relief of labored breathing.

Patients who had previously been unable either to work or to care for themselves could hold jobs and carry on a certain amount of normal physical activity after treatment. This improvement came after treatments of from two to 11 months and lasted for four months or longer in half of the patients.

Thirty-five patients over 40 years of age received the synthetic female sex hormone. Pain was relieved in 11 of 18 patients in this group. There was also the same improvement in appetite, breathing and sense of well-being as in the patients treated with male hormones.

The improvement appeared over periods of from two to 17 months and lasted seven months or longer in about half of the patients.

There was no evidence that the cancer was made more active by the male hormone, but, in one patient treated with female hormones, there was a greater rate of growth in the skin cancer which had spread from its original site in the breast.

Extreme reactions to the male hormone were noted in some patients. These included swelling of the legs, deepened voice, increase in the growth of hair, and acne. Only side reactions to the female hormone were nausea and vaginal bleeding.

Since this study began, 55 patients have died, the research team reported.

The Breast Clinic of the Memorial Hospital and the Sloan-Kettering Institute for Cancer Research were the site of the experiments. The work was aided by grants from the National Cancer Institute of the U. S. Public Health Service, the American Cancer Society, the Albert and Mary Lasker Foundation, the Adele R. Levy Fund and the Stranahan Foundation.

Sex hormones are designated as a third weapon now available to fight breast cancer by a committee of experts in a progress report to the Council on Pharmacy and Chemistry of the American Medical Association which is also published in the association's *JOURNAL*.

## MEDICINE

## New Anti-TB Drug

► FIRST animal trials with a new antibiotic having tuberculosis-fighting qualities revealed that it can arrest the activity of TB germs.

The antibiotic is lupulon, derived from hops, a necessary ingredient in brewing beer. Its anti-TB action in mice is reported by Drs. Yin-Ch'ang Chin and Hamilton H. Anderson of the University of California Medical School in San Francisco, and Drs. Gordon Alderton and J. C. Lewis of the Western Regional Research Laboratory in Albany, Calif., in the *PROCEEDINGS OF THE SOCIETY FOR EXPERIMENTAL*

A direct attack on breast cancer and the widespread lesions resulting from it can now be made with the hormones where previously no weapon for treatment had existed, the committee stated.

But they emphasize that surgery and X-rays are still the best treatments, and hormones should be used only as a last resort, when the other methods have failed or cannot be applied.

This research is still in its early stage, the reports point out. More knowledge must first be accumulated of the hormones' action and its end results. This is expected to come from the experience of researchers working with the new weapon all over the country.

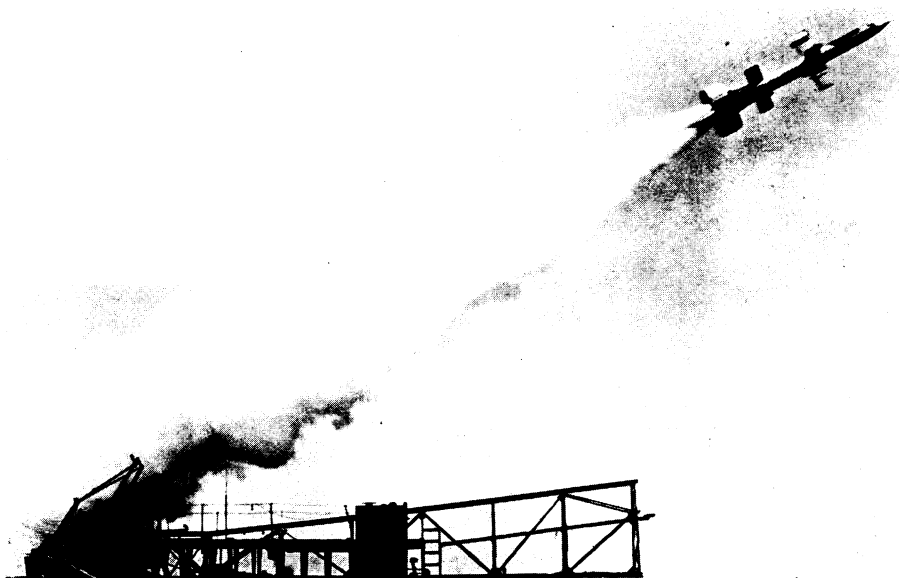
*Science News Letter, August 20, 1949*

*BIOLOGY AND MEDICINE* (Jan.).

One hundred mice infected with TB were used in the tests. Some got the lupulon by mouth, others had it injected into the muscles, while 40 were untreated and observed for comparison.

The result in the lupulon-treated mice was a four to one reduction in the severity of the disease in body tissues and organs. However, kidney damage was noted in the mice receiving the drug by the muscle route. Whether the antibiotic can reverse the symptoms of the disease has not been determined yet.

*Science News Letter, August 20, 1949*



**ENEMY AIRCRAFT INTERCEPTOR**—This Convair Lark, officially designated XSAM-N-4, is a shipboard-launched guided missile designed to intercept and destroy enemy aircraft before ship or shore target can be attacked. The missile is powered by a high thrust, liquid fuel rocket motor and was built for the Navy's Bureau of Aeronautics by Consolidated Vultee Aircraft Corporation.