

SURGERY

Perform Lung Operation On Hypnotized Patient

► THE FIRST REPORTED lung operation on a hypnotized patient was announced by Dr. Milton J. Marmer, chief of anesthesiology at Cedars of Lebanon Hospital, Los Angeles, at the American Medical Association meeting in Chicago.

The patient was a 25-year-old woman with a lung tumor. She was deeply hypnotized and hypnotic suggestions were continued during the two-and-a-half-hour operation. The patient obeyed all the instructions except the command to hold her breath. Because of this, a drug was given to slow down breathing for about 45 minutes. She left the hospital in "excellent condition" a week later.

Previously, operations on hypnotized patients have been confined to abdominal surgery, appendix removal, breast surgery and amputations.

Hypnotism in skilled hands, Dr. Marmer said, is the only means of anesthesia holding no danger for the patient. It makes the patient unafraid before the operation, free from pain during it and comfortable afterwards. It has the "superlative advantage" of placing no extra load on the patient's blood circulation and breathing systems, liver or kidneys.

Patients vary in their susceptibility to hypnotism. The best subjects are ordinary, normal people, the more intelligent and imaginative the better, Dr. Marmer said. Children are usually good subjects because of their imaginations.

The patient who has been hypnotized is not an automaton. He can refuse to carry out suggestions and can break the trance if the situation becomes intolerable.

The only disadvantage to hypnotism for anesthesia, in Dr. Marmer's opinion, is that it takes considerable time. This, he thinks, is more than offset by its many advantages.

Science News Letter, June 23, 1956

ENDOCRINOLOGY

Fear Conditioning Activates Adrenals

► MONKEYS "conditioned" to show fear or anxiety when given an unpleasant stimulus put out more adrenal gland hormones while trying to avoid the stimulus, although in other conditioning experiments involving apparently less stress, they do not.

Studies showing this were reported by Dr. John W. Mason of Walter Reed Army Institute of Research, Washington, at the Endocrine Society meeting in Chicago.

The studies are part of Dr. Mason's investigation of the nervous mechanisms underlying regulation of ACTH, the pituitary hormone that influences adrenal gland hormone production. Besides seeking the nervous mechanisms, Dr. Mason is trying to find psychological reactions that go with increased ACTH secretion.

Science News Letter, June 23, 1956



ROBOT CHEMICAL ANALYZER — To recover additional plutonium valued at a quarter of a million dollars per year, General Electric Company scientists at the Atomic Energy Commission's Hanford plant have developed this automatic chemist. Liquid waste from the plutonium refinery fills dimples in the tape, and processing is adjusted if plutonium is found.

MEDICINE

Save Leukemia Victims

► SWIFT, if temporary, rescue of leukemia patients can be achieved by very big daily doses of the synthetic hormones, prednisone and prednisolone, Dr. Jos. M. Hill and associates of Dallas, Tex., reported at the American Medical Association meeting in Chicago.

These synthetic hormones first gained fame a little over a year ago as being even better than cortisone in relieving arthritis. For the leukemia patients, however, the Dallas doctors give daily doses up to 100 times the ordinary treatment dose.

Patients begin to get better within three days. The remission, or temporary recovery, lasts about two months.

One patient with chronic leukemia, however, has stayed in remission longer than nine months.

Two children in their first remissions were well enough to play such good baseball they won athletic trophies. An expectant mother was enabled to live long enough to give birth to a live, normal baby, although unfortunately she later died of a ruptured spleen, probably a result of the leukemia.

With this treatment, the Dallas doctors have been able to push the remission rate to 98% for acute lymphatic leukemia and to 74% for acute myelogenous leukemia, whereas remission rates in these leukemias have been as low as 20%. The good re-

sults have come in patients over age 30 as well as in younger ones.

A hopeful feature of the treatment is the finding that it "literally tears holes" in the leukemic cells in the blood and bone marrow. Dr. Hill thinks this may mean the treatment is really hitting the disease process.

An important, if temporary, lifesaving feature is the swift action of the synthetic hormones in big doses. It is saving patients who are so sick they would be expected to die within the first 48 or 72 hours or even two weeks.

They are too sick to wait for the anti-metabolite drugs, used in leukemia, to take effect. These drugs may take as long as two months to take effect, Dr. Hill pointed out.

The new treatment also helps patients "turn the corner" when the anti-metabolite drugs are not helping.

The synthetic hormones in big doses are used both alone and in combination with the anti-metabolite drugs. They give extra remissions and particularly, Dr. Hill stressed, they give "that last remission" when everything else has failed, and thus prolong life a bit more.

Associated with Dr. Hill in the studies are Drs. G. J. Marshall, R. J. Speer and D. J. Falco.

Science News Letter, June 23, 1956