

MEDICINE

Rare Operation Restores Invalids to Active Lives

Removal of as Much as Three Fourths of Hardened Pericardium Frees Heart for Normal Functioning

A HEART operation that is returning bed-ridden invalids to normal, active lives is being successfully used by thoracic surgeons in the University of California Medical School.

Sometimes rheumatic or tuberculous infections will invade the pericardium, the membranous, fluid-filled sac surrounding the heart. Normally this sac is flaccid and roomy enough to permit easy expansion and contraction of heart muscles in their blood-circulating action.

When the pericardium becomes infected, a condition known to doctors as constrictor cordis or Pick's disease results. Calcium, the hardening substance of bones, begins to coat the membranous sac, and it soon takes on a marblelike appearance as it hardens and shrinks. The heart is so restricted in its pumping action that only about half the normal amount of blood can be handled. Besides extreme debility, the abdomen swells and the breath becomes short and difficult.

University of California surgeons,

knowing that the pericardium is not essential to the heart's functioning, removed a large part of the bony sac; sometimes as much as three-quarters of the calcium carbonate-hardened membrane, a most delicate operation, but performed successfully on four extreme cases. Even before the operation was completed the freed heart began to return to normal functioning and the painful symptoms soon were relieved. The patients live comfortably without a pericardium and their hearts are able to pump a normal supply of blood throughout the body again.

Surgeons who conducted the operations on this rare disease are all members of the thoracic surgery staff of the California Medical School, headed by Dr. Harold Brunn, clinical professor of surgery, and including Dr. Alfred Goldman, instructor in surgery, Dr. Brodie Stevens, assistant clinical professor of surgery, and A. L. Brown, clinical instructor in surgery.

Science News Letter, September 27, 1941

patients belonging to groups A, B and AB without previous determination of the blood group of the patient and sometimes even without cross matching has been achieved, the Buffalo scientists report. They point out, however, that there are still many sources of transfusion reactions which are not influenced by the addition of group-specific substances to O blood.

Science News Letter, September 27, 1941

NUTRITION

Physician Doubts Statement Of Vitamin Deficiency

THE NUMBER of people in the United States suffering from lack of vitamins is far below the 45,000,000 figure given at the National Nutrition Conference for Defense, in the opinion of Dr. Logan Clendenning, of Kansas City, Mo.

In a report to the *Journal of the American Medical Association* (Sept. 20), Dr. Clendenning seems to challenge the statement of Federal Security Administrator Paul V. McNutt that 45,000,000 Americans "lack the foods we know are essential for health," and that another 50,000,000 have impaired health because of poor diet, and similar statements by physicians and nutrition authorities.

Figures Dr. Clendenning has from Massachusetts General Hospital, Boston; The Johns Hopkins Hospital, Baltimore; County Hospital, Santa Barbara, Calif.; Kansas City General Hospital and the University of Kansas Hospitals show that a very small percentage of the patients suffered from vitamin deficiency.

"If these figures are a guide to the incidence of vitamin deficiency in the United States, it is infinitely far below 40%, or 95,000,000," Dr. Clendenning declares.

"I would not wish, naturally, these findings to be interpreted as casting any doubt on the validity of the vitamin doctrine or to imply that there should be any relaxation in the instruction of the public in the requirement of vitamin containing foods in the dietary," Dr. Clendenning declares. "But they do indicate, I think, that the American public is getting its vitamins; in fact, with modern food production, transportation, refrigeration and distribution it is pretty hard for an American to avoid vitamins on an ordinary diet. This seems to apply even to the population levels of low intelligence and income."

Science News Letter, September 27, 1941

MEDICINE

Safer Emergency Transfusions With Universal Donor Blood

SAFER emergency blood transfusions may be achieved by a method announced by Dr. Ernest Witebsky and Dr. Niels C. Klenshoj, of the Buffalo, N. Y., General Hospital (*Science*, Sept. 12).

The method is a treatment of group O blood, the universal donor blood sometimes used for emergency transfusions when there is no time to type the patient's blood or when blood of the patient's blood group is not immediately available.

Group O blood is used in this way because, except in very rare instances, the blood cells of group O are not agglutinated or stuck together by any nor-

mal human blood serum. If the cells of the donor's blood should be stuck together by the patient's blood serum, the patient would have a severe and possibly fatal reaction.

To avoid this difficulty, the Buffalo investigators have added to group O blood tiny amounts of the two sugary-like substances which are characteristic of group A and group B bloods. Addition of these recently isolated chemicals neutralizes the anti-A and anti-B antibodies in group O blood which could cause transfusion reactions in some patients.

Success in over 100 transfusions with "neutralized" O blood given mainly to