

Medical Sciences Notes

HEART PROSTHESES

Heart valves avoid clotting

The blood clotting problem with artificial heart valves appears to have been overcome in the designs and materials of two new replacements introduced at the American Heart Association meeting last week in San Francisco.

One of the devices is a two-piece design for use in the mitral valve. Developed by Dr. Julio C. Davila under \$1 million in grants from the John A. Hartford Foundation, the valve has been tried on 13 critically ill patients, one of whom has survived for a year and four months without any evidence of clotting. One part is made of fine Dacron felt fibers in a ring-like cuff that encourages formation of a well-healed tissue joint.

The second is the three-leaflet valve developed by Dr. Charles A. Hufnagel at Georgetown University Medical Center, Washington, D.C. (SN: 4/15). So far, 20 patients have had their aortic valves replaced without a death.

This valve's base is shaped exactly like the natural valve, making insertion simple, with only eight to 10 stitches needed to keep it in place. The valve, made of polypropylene, reinforced and coated with silicone, is doped with heparin, an anticlotting agent, before implanting.

BEREAVEMENT

'Broken-heart' deaths no myth

Deaths among newly bereaved family members were six times greater than those among non-bereaved families in a semi-rural Welsh community, the Oct. 7 issue of the *BRITISH MEDICAL JOURNAL* reports.

This and other studies suggest that deaths attributed to a broken heart may be something more than myth. A recent London study showed that heart-attack deaths of widowers during the first six months of bereavement were largely caused by grief.

Since reports in both Britain and the United States point to the influence of bereavement on physical and mental health, doctors should prepare themselves to help.

"What can doctors offer? A willing ear, tolerant of confusion and anger, and a knowledge of community resources are probably more important than tonics and sedatives," the *JOURNAL* concludes.

NERVE STIMULATION

Hiccup remedy works

A remedy for hiccups—usually a minor matter but sometimes fatal when uncontrolled—really works, but it should be used only by physicians, the *Journal of the American Medical Association* says.

The treatment involves inserting a flexible tube through a nostril and stimulating the pharyngeal nerves at the back of the mouth where nasal passages join the throat.

University of Chicago doctors say that home remedies such as swallowing ice or water are often successful because they also stimulate these nerves.

Dr. M. Ramez Salem inaugurated the treatment at the American University of Beirut with Dr. Anis Baraka. Continuing the work in Chicago, Dr. Salem was assisted by Drs. Christen C. Rattenborg and Duncan Holaday. Their method worked in 84 of 85 cases.

DIAGNOSIS

Marshmallows X-rayed in esophagus

Swallowing barium before an X-ray is getting to be a piece of cake—or at least candy—if it is your esophagus that is being pictured. Experiments with laboratory-made marshmallows flavored with a cupful of barium sulfate have been so successful that the method may be widely adopted.

Drs. Edmund F. McNally and Walter Del Gaudio of the State University of New York Downstate Medical Center have found the confection an excellent way to detect disease with the fluoroscope because marshmallows are so slow in going down. The confections also have a consistency that serves to outline irregularities in the passageway from throat to the stomach.

The physicians call the soft mass a bolus. Meat, bread and gelatin are other boluses that have been used in attempts to diagnose esophageal problems, but none equals the marshmallow.

The Brooklyn physicians, who report their work under the title "The Radiopaque Esophageal Marshmallow Bolus" in the October issue of *THE AMERICAN JOURNAL OF ROENTGENOLOGY, RADIUM THERAPY AND NUCLEAR MEDICINE*, will give their recipe to qualified radiologists who are interested. Commercial marshmallows won't work.

AVIATION

Jet travel endangers pregnancies

Married hostesses on commercial jet planes run the danger of miscarriage as well as other physical complications, a German physician finds.

Dr. H. G. Mutke of the German Aerospace Medical Association in Munich reported his findings to the world congress on gynecology and obstetrics in Sydney, Australia.

A large number of married women who fly 700 to 800 hours a year made repeated complaints of menstrual disturbances, sleeplessness, depression, gastric troubles, chronic tiredness, heart palpitations and inability to concentrate, Dr. Mutke said.

In concentrating on cockpit personnel, aerospace medical research has not given proper attention to the problem of workers in the cabins, he says. Miscarriages may be caused by motion sickness, which occurs occasionally during flights; other complications arise from cabin pressures, which correspond to high altitudes.