## **Artery Link Helps Heart**

New techniques in vascular surgery make it possible for patients to resume daily activity

➤ A HEART PATIENT who was a bed-chair invalid was able to do ballroom dancing after undergoing an artery rechanneling operation.

The internal mammary artery was implanted into the left ventricular heart muscle of 40 patients, 38 of whom had severe angina pectoris, and two of whom had multiple myocardial infarctions, or obstructions by clots. Only four of the 30 males and 10 females undergoing the operation died during a two-year period of observation, two Harvard Medical School doctors reported in the New England Journal of Medicine, 275:283, 1966.

The surgery was done at Peter Bent Brigham Hospital in Boston. Careful selection of patients and new techniques account for the success of the revascularization, or growth of new vessels together.

Previously, the mammary stalk, or pedicle, has been implanted routinely beneath the first diagonal branch of the left front descending coronary ar-



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tery by surgeons performing other similar operations. Drs. Richard Gorlin and Warren J. Taylor, however, varied their implantations with the site of the disease. Angiograms determined the site.

Sixteen patients said there was considerably less pain from angina, the suffocating chest pain caused by reduction of blood flow. Five of them had formerly been using 20 to 100 nitroglycerin tablets daily to stop the pain.

One of these patients resumed active trial law for the first time in three years, and another returned to senior-executive duties. One woman was able to go back to school-teaching on a full-time basis and two others resumed complete household duties. There was usually a lapse of three to eight months after the operation before improvement was noted, however.

"Cautious optimism" is justified in evaluating the success of this surgery for future use, the physicians said, although a number of problems remain unanswered. Three of the four deaths occurred from acute myocardial infarction and the fourth was related to pulmonary embolism in a case of hardened arteries producing congestive heart failure.

## South Pacific Hospital Survives Long Drought

➤ A TINY, but unusual island hospital in the South Pacific has survived a fivemonth drought that almost forced it to close its doors by drastically limiting the water available for drinking and for medical and surgical care.

Dr. Joeli Taoi, medical director of the New Hebrides Mission Hospital, sees 30 to 40 outpatients every weekday and twice as many on Sunday. The local economy centers around the production and export of copra, dried coconut meat valued commercially for its oil content, and very few islanders can be spared on any day but Sunday from their work on the plantations.

Dr. Taoi is called Dr. Joeli by his patients, most of whom come to the 18-bed hospital by boat from surrounding islands. It is located on Aore, one of the smaller islands in the New Hebrides group, about 50 miles east of Fiji, where Dr. Joeli was born and went to Fiji Medical College, a Government school.

In addition to treating more than 7,000 outpatients and 700 inpatients at the hospital each year, Dr. Joeli makes regular trips into the mountainous back country to treat village people who are reluctant or unable to come to the hospital.

Now, when the hospital's temperamental generator refuses to produce electricity Dr. Joeli uses a kerosene lamp to illuminate surgery. He plans to enlarge the building and add more equipment to the hospital.

GENERAL SCIENCE

## Fermi Winners Named

THE ATOMIC ENERGY Commission announced the selection of three internationally distinguished European nuclear scientists to share the Commission's Enrico Fermi Award for 1966. This is the first time that foreign scientists have been named as recipients of the award.

The three scientists, chosen to receive the award jointly because of their combined and individual efforts in discovering nuclear fission, and for their extensive experimental studies which led to this vital discovery, are:

Prof. Otto Hahn, 87, who lives in Goettingen, West Germany:

Prof. Lise Meitner, 87, who was born in Vienna and worked for many years in Germany but now lives in England, and

Prof. Fritz Strassmann, 64, director, Institute of Inorganic and Nuclear Chemistry, Mainz University, Mainz, West Germany.

Professor Meitner is the first woman to receive the Fermi Award.

Each of the scientists will receive a gold medal, a citation and a one-third share of the \$50,000 award.

The Fermi Award is made on the recommendation of the Atomic Energy Commission's General Advisory Committee, established by the Atomic Energy Act to advise the Commission on scientific and technical matters, and is approved by the President. The award is named in honor of the late Dr. Enrico Fermi, leader of the group of scientists who achieved the first self-sustained, controlled nuclear chain reaction on Dec. 2, 1942.

Although Drs. Hahn, Meitner and Strassmann participated in many thrilling moments during their scientific careers, there was none that caused the reverberations around the world as those resulting when Drs. Hahn and Strassmann published on Jan. 6, 1939, the results of experiments revealing that the nucleus of a uranium atom can be split into two parts. The word spread quickly.