

SURGERY

Talcum for Heart Patients

Heart patients rehabilitated by operation in which talcum is put into sac around heart. Education is road to easy childbirth, surgeons hear.

► PATIENTS CRIPPLED by heart disease are being rehabilitated to normal or nearly normal activity by an operation in which talcum is put into the sac around the heart.

Excellent results in 19 patients and good results in another 14 of 47 who had the operation were reported by two New York surgeons, Drs. Aaron N. Gorelik of the Metropolitan Hospital and Dr. Simon Dack of Mount Sinai Hospital, at the meeting in New York of the U.S. and Canadian Chapters of the International College of Surgeons.

The patients reported on had severe disease of the heart's arteries, with severe chest pain, or angina pectoris, and labored breathing.

But the treatment is now being used also on patients with advanced rheumatic heart disease and congestive failure. Early signs are that these patients will be helped but more need to be treated before a conclusion can be reached, the surgeons said.

In the patients with heart artery disease, the body's reaction to the irritation of foreign material, in this case the talcum, stimulates formation of new blood vessels nourishing the heart muscle and promotes the opening of blood vessels in the heart which exist but may not be functioning.

The large size of the particles of talcum, or magnesium silicate, used keeps it from being absorbed by the body. Instead, it remains imbedded in the tissue around the heart for a long time. Some of the patients reported on had been operated on and had talc inserted as long as four years ago.

Successful Blue Babies

► A 192-POUND, 19-year-old trainee in the Royal Australian Air Force and a 16-year-old high school student who was a semifinalist in open tennis championship started life as blue babies.

Their cases and other examples of successful operations were cited by Dr. Bruce Shallard of Vancouver, B.C., Canada, at the meeting in New York. Dr. Shallard, reported on a follow-up study of 26 patients who had been operated on at the Royal North Shore Hospital in Sydney between 1942 and 1944.

These once-blue babies suffered from the condition called patent ductus arteriosus. In them, the ductus arteriosus, or channel from the main artery to the artery supplying the lungs, did not close at birth as it normally does.

The result in such cases is a loss of nourishment to the tissues, breathing diffi-

culties, a continuous heart murmur sometimes loud enough to be heard without a stethoscope, and sometimes a blue skin showing the oxygen deficiency. Pain is also frequently a symptom, and the prospects in such cases formerly were for a short life.

The operation that saves these babies and restores them to a healthy life involves cutting the ductus, or channel, and sewing the two ends.

Of the 26 patients Dr. Shallard reported on, 17 were available for re-examination when he made his follow-up study. With two exceptions, they are all "robust, fully developed and leading full lives," he found.

The two exceptions are a child born with multiple deficiencies and an adult with high blood pressure.

"Training" for Childbirth

► EDUCATION IS the road to easier childbirth for many women, in the opinion of Dr. Harold B. Davidson, New York obstetrician and gynecologist.

He reported at the meeting that he had delivered babies of about 200 women who had been "trained" for childbirth, and that he "never had a happier group of patients." He emphasized that the idea was not "natural" childbirth.

Dr. Davidson called the technique "planned psychosomatic attention to the psychological needs of the patients, added to standard obstetrical procedure."

"It must be recognized that women vary in the ease with which they have their children," he said. "To some, childbirth comes easily; some find it slow and arduous.

"In the psychosomatic approach it is of the greatest importance to frankly let the patient know that we appreciate that there is real somatic pain during labor; to speak of 'pains' as well as of 'contractions.' We must not try to 'use psychology' on children or to delude.

"We are trying to remove the mystery, to educate the mature woman to face her labor realistically—each to her own needs—and to enable her to master herself so that she can react to her labor with her own best capacity for equanimity.

"She must know that the use of any method of managing her labor is completely optional—the choice is hers. And, each woman must know that her obstetrician will help her; will deny her neither medication nor anesthesia, but that her labor will be conducted according to her own needs and capabilities and her own wishes in respect to this."

Dr. Davidson said that the success of the program depends on the alleviation and prevention of latent anxiety in the patient, adding:

"Any such program appears to operate not only as an active therapy for anxiety already mobilized (though not necessarily conscious), but also in a preventive way against the mobilization of further latent anxiety as pregnancy progresses and delivery time approaches."

Clog Shoes for Bunions

► JAPANESE CLOG shoes, with straps between the first and second toes, are good for checking bunions developing in teenagers, Dr. Earl D. McBride of the University of Oklahoma reported to the meeting.

A bunion, or hallux valgus, is a hereditary disease. Many persons have this deformity all their lives without being bothered by it, he said.

A short or pointed shoe will aggravate the condition. Style-conscious teen-agers should be watched, he advised, to see that they do not wear shoes which aggravate the condition. If caught at this age, correct shoe fitting, manipulation and exercises will correct it. At older ages surgery is required for correction.

Science News Letter, October 3, 1953

METEOROLOGY

Weathermen Forecast Hailstorms Accurately

► FORECASTS OF hail, both on the ground and in the air, can be made accurately, two weathermen at Tinker Air Force Base, Okla., have found.

Their method predicts not only the formation but also the size of the hailstones to be expected. The height above the earth's surface to which ground-level air would have to be carried to cause freezing is, they have found, an important indication of hail formation.

To aid other forecasters, Lt. Col. Ernest J. Fawbush and Maj. Robert C. Miller of the U. S. Air Force have drawn a chart of the hail size to be expected based on the height of such freezing levels. "About 8,000 feet above ground" is the best height for fall of hail to the surface. When such a freezing level is higher than 11,000 feet above the ground, large hail may be formed aloft, but only small sizes, about one-fourth of an inch, reach the surface.

Hailstones, they report in the *Bulletin of the American Meteorological Society* (June), "maintain their size for at least 9,000 feet of free fall, after which rapid melting and disintegration take place."

Hail is formed in the strong updrafts that are found as thunderstorms develop. Now that routine operational flights are made during bad weather, hail has become a hazard in flying as well as to crops and property.

Science News Letter, October 3, 1953