

SURGERY

Thyroid Transplanted

► **SUCCESSFUL TRANSPLANTATION** of the thyroid gland from the neck of a 21-day-old baby to the groin of a 29-year-old woman was reported by Drs. Julian A. Sterling and Ralph Goldsmith of the Albert Einstein Medical Center, Philadelphia.

Operation to remove the gland from the baby started one hour after the child's death. Five and one-half hours later the major blood vessels of the stem of the gland had been stitched to the blood vessels in the young woman's groin and the final dressing had been bandaged on her wound.

The young woman had had her own overactive thyroid gland removed at another hospital ten years previously. Immediately after this, symptoms of tetany with spasms, tremblings and muscular pains developed.

She had to take vitamins and thyroid extract one to five times a day and calcium salts by injection into veins as often as four times a day. Apparently the parathyroid glands had been removed along with the thyroid. Attempts to correct this by transplanting parathyroid gland, at a third institution, failed.

The grafting of the baby's thyroid was done two years ago, Nov. 21, 1952. Since then the young woman has been well and happy and able to do her own housework. The only medicine she takes is an occasional oral dose of calcium.

"Blue Baby" Rescue

► **AN 11-YEAR-OLD** boy has been rescued from a "blue baby" heart condition, thanks in part to the "unusual courage" of a Navy veteran who, though not a relative, volunteered for a blood exchanging arrangement with the boy.

The blood exchanging is done by a procedure called cross circulation. In this, the donor's blood is pumped from his artery to the patient's artery, while the patient's blood is pumped from his vein to the donor's vein.

This gives the surgeon a chance to open the right ventricle of the heart, which is dry of blood temporarily, and to repair defects such as the blue baby one and others under direct vision instead of by feel.

The cross circulation maneuver has now been used in 21 cases, with the majority surviving, Dr. C. Walton Lillehei of the University of Minnesota Medical School reported. In all but one the donor has been a relative.

However, when the blue baby boy's turn came, no relative had the rare AB blood the child had. The Navy veteran, Howard Holtz, lived in the same town as the child, heard about the case, knew he himself had AB blood and volunteered to be the cross circulation donor.

Associated with Dr. Lillehei in the cross circulation work are Drs. Morley Cohen, Herbert E. Warden, Raymond C. Read and Richard A. Dewall.

Spare Part Surgery

► **NEWEST THING** in spare part surgery, that is, replacing a worn out or defective part of the human body with a new part, is likely to be the grafting of plugs of living tissue into the human heart itself.

Studies looking toward such surgery were reported by Drs. William W. L. Glenn and L. Newton Turk III of Yale University School of Medicine.

They believe that incompetent heart valves, especially the mitral and tricuspid valves, might be repaired better by using tissue from elsewhere in the body.

In their work with dogs, they used a plug of tissue consisting mainly of blood vessels. They passed this through the left auricle of the heart, through the mitral opening and into the left ventricle where it was finally "anchored" by stitching it to the wall of this heart chamber. There it will presumably function as a substitute mitral valve between the two left heart chambers.

If autopsy studies of the 17 surviving dogs show that the grafts lived and functioned up to nine months, the surgeons may dare to try this new spare part surgery on human hearts.

Water Head Babies

► **AN OPERATION** that helped some babies with so-called water heads was reported to the meeting.

The condition is known medically as hydrocephalus. The infants have too much fluid in their brains and, consequently, very big heads that get bigger during their usually short lives.

The operation was designed to help the babies by draining off the excess fluid from the brain into the peritoneal cavity, or abdomen, where it might be absorbed by the tissues.

Rubber tubing is inserted into the brain and carried down under the skin to the abdomen. There it is connected to a stainless steel button that is suspended through the abdominal wall into the peritoneal cavity "like a light bulb in a ceiling." The rubber tubing under the skin is placed in a snake-like pattern so it will be long enough when the child has grown to full size.

Three of the stainless steel buttons have been working satisfactorily for as long as two years. The operation has helped "a small percentage" of patients, Drs. Michael Scott, Henry T. Wycis, Frederick Murtagh and Victor Reyes of Temple University

Medical School and St. Christopher's Hospital, Philadelphia, reported.

Preserve Brain Cover

► **THE MEMBRANE** that covers the brain, called the dura, can be preserved for grafting by the freeze-drying technique for preserving arteries and other tissues.

Success with the method in dogs was reported by Lieuts. William H. Sewell and Douglas R. Koth of the Naval Medical Research Institute, Bethesda, Md.

Dura has been stockpiled at the tissue bank of the Naval Medical School and will be used clinically in the Naval Hospital at Bethesda, Md.

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