

Wife Who Survived Frozen Operation Leaves Hospital

CHICAGO, June 16.—(INS)—A 25 year old housewife, who survived a heart operation under refrigeration anesthesia to make medical history, today resumed normal living.

She is Mrs. Lorraine Mackowiak of Suburban Oak Park, whose heart stopped for a total of sixteen minutes during a daring two stage operation by a team of five surgeons at Wesley Memorial Hospital last May 18.

Mrs. Mackowiak left the hospital yesterday, two pounds above her usual 95 pounds and none the worse for her "frozen sleep."

During the operation in which two strictures, choking the right ventricle of the heart were removed, Mrs. Mackowiak's body temperature was lowered from 98.6 degrees to 80 by wrapping her in a blanket through which a refrigerant circulated.

The heart was split in the first operation to sever a constricting anatomical collar which ordinarily disappears before birth. It took four and one half minutes to restart the heart.

The heart was severed a second time to reach the pulmonary valve that was 98 per cent closed. The valve phase of the operating took three and one half minutes and another four minutes were required to start the heart pumping again.

There have been previous operations to remove such muscle strictures, but this was the first time that two had been removed in the same operation in what is termed "a dry field."

The dry operation area was produced by the reduction in

body temperature, which slowed the pulse to thirty and reduced the circulation to a feeble flow.