

46 (456)

Remote results of the replantation of the kidneys.By **ALEXIS CARREL.***[From the Laboratories of the Rockefeller Institute for Medical Research.]*

When a kidney is extirpated from an animal and replanted on the same animal with a proper technique, it does not undergo any anatomical or physiological changes. In several cases, I examined a kidney several months after its extirpation and replantation and could not detect any anatomical change. Ten months after the resection and the replantation of the left kidney of a dog, the organ was examined. Its size and appearance were identical to those of the right kidney. The vascular and ureteral anastomosis were almost invisible. There were no microscopical differences between the kidneys.

Two years ago, a bitch underwent a double nephrectomy and the replantation of the left kidney. Since that time she has become pregnant twice, has had a number of normal pups, and is still in perfect health.

These experiments show that, from a surgical standpoint, the question of the graft of organs is solved. The bad results obtained by some experimenters are due merely to faults of technique.

47 (457)

Temporary diversion from the left ventricle to the descending aorta.By **ALEXIS CARREL.**

In the plastic operations on the thoracic aorta, it is necessary not to interrupt the circulation for a long time. Therefore, the blood must be diverted. I described already the central diversion of the blood by intubation of the aorta. I attempted also to establish a communication between the left ventricle and the descending aorta, by means of a paraffined rubber tube or a vein preserved in cold storage. I succeeded twice to direct the blood directly from the heart into the descending aorta. The ascending aorta was then clamped, and the circulation reversed through the upper part of the descending aorta.

The purpose of these experiments is to develop a technique permitting operations on the first part of the arch of the aorta.