

of the process of vascularization, as seen on a granulating surface, and that which occurs when blood-clot or fibrinous exudation is replaced by vascular cicatricial tissue. He states that blood-clot or fibrinous lymph plays merely a mechanical and passive part in any situation, and that vascularization is not due to the formation of new vessels, but rather to a displacement and pushing inwards of the blood-vessels of the surrounding tissues. He looks upon blood-clot and fibrinous exudation as so much dead matter, which affords merely a framework for the capillaries to ramify in, and proves that it is so by employing sponge to replace it. This sponge is prepared in a special way, and when placed on old ulcers he succeeded in organizing it—or rather filling its interstices with blood-vessels and cicatricial tissue, the sponge in the meantime disappearing by absorption. Many other experiments were made which fully proved his theory. Dr. Hamilton noted a significant phenomenon, supporting the theory that blood-vessels were pushed into the sponge in loops, when the convexity of a loop came in contact with the sponge framework, instead of one of its pores, a curvature formed on the vessel at the opposing point, and on each side of the obstacle there was pushed a secondary loop similar to that from which both had arisen. These blood-vessels, according to Mr. H., bear with them great numbers of the actively proliferating connective tissue corpuscles from neighboring connective tissue, and these, and not the leucocytes, are the tissue-forming cells. Sponge Grafting, he says, is excellently suited for growing new tissue where that is insufficient to cover a part. Instead of sponge, charcoal or calcined bone might be employed in certain cases, as, for instance, where the formation of new bone is needed.

The *Transplantation of Bone* has been successfully accomplished both by Dr. MacEwen, of Glasgow, and Mr. McNamara, of Westminster Hospital, London. They had been pursuing their investigations on this subject at the same time, unknown to one another. Dr. MacEwen placed his case first before the public. He remade a humerus which had been destroyed by necrosis, by placing small fragments of bone

(removed from patients with curved tibiae) in a groove made in the soft tissues in the position of the humerus. Mr. McNamara successfully replaced a tibia which had become deficient from acute necrosis. He used portions of bone from an amputated metatarsus. The necessity for transplanting bone is necessarily rare, as nature is so skilful in the repair of bone, that the interference of the surgeon is seldom needed. These experiments carry out Mr. Hamilton's theory of organization, and are interesting from a surgical point of view.

The surgeon looks upon no organ or region now as sacred. Operations are at present daily performed successfully which, if even suggested a few years ago, would have been looked upon as absurd. The lung has been partially excised, the liver has been cut into, and parts of it removed successfully. The whole stomach has been excised, and the œsophagus stitched to the duodenum, and many feet of intestines have been taken away, and the cut ends stitched together, patients making good recoveries. The renewed attempts at removal of the spleen have not been so successful as of old; the whole uterus has been excised, even when pregnant, and the patient has survived, but this now belongs to the realm of gynaecology. The surgery of the organ which I am going to notice has, as yet, escaped the upward tendency of the gynaecologist, but how long it will remain in the domain of pure surgery I know not, as already one of its dependencies (the bladder) has been annexed in the female.

The *Surgery of the Kidney* has greatly engaged the attention of surgeons during the last twelve months. At the International Congress it was the subject of several papers, and caused much interesting discussion. Since then it has occupied considerable space in the Medical Journals, and the operations of nephro-lithotomy; nephrotomy, and nephrectomy have become recognized operations. It has been established beyond doubt that *nephro-lithotomy* is a most successful operation in properly selected cases, viz., where the stone is of moderate size and single, and the kidney has not become disorganized. It is a most scientific procedure to perform this operation where stone has been