

and the edges of the attached piece of bladder sutured to the defective bladder. The skin flaps will afford sufficient nourishment to the exsected bladder until union has occurred between the bladder edges, then the superimposed skin may be separated from the now perfect bladder. By employing a transplanted piece, which has been removed from the lower portion of the bladder of the animal, the aggregation of circular muscular fibres will approach very nearly to an ideal sphincter. I would suggest seven or eight days for the union of the transplanted bladder to the fascia, since we know that the fate of most transplanted tissues is to lose their normal structure, and become converted into connective tissue. In one case in which I left the transplanted piece in the tissues twenty-four days, the histological structure was almost lost, as seen in the accompanying report of Dr. W. T. Connell:—

“Serous coat has become completely vascularized, and from it a small number of vessels pass into the muscular coat. This layer everywhere shows the outlines of the muscular fibres, but these are in all stages of degeneration. The mucous coat is also vascularized, the mucous membrane as such having disappeared, and being replaced by vascular granulation tissue. The epithelium has completely degenerated. The vascularization has occurred over the edges of the gold foil.”

Even though some slight changes do occur in the transplanted bladder, in the eight days mentioned above, yet I believe the new vascular supply from the defective bladder, as well as the stimulating action of the urine in the exposed *m. m.*, would prevent any further connective tissue changes. Should, however, there be no union of nerve fibres sufficient to allow the muscular tissue of the transplanted piece to become of service, there would still be a decided gain in having a bladder formed entirely of bladder tissue covered with mucous membrane and lined with bladder epithelium.

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