

tomy, and the patient recovered, and was well, and in active service four years later.

In only three of my cases would it have been possible to have removed all of the disease by a partial operation.

Nephrectomy is then the operation of choice, and my own method of doing it is as follows : The patient is placed upon the Edebohl's cushion, to bring the loin into prominence and an oblique incision is made from the last rib, beginning at the angle formed by the attachment of the quadratus lumborum muscle, and extending obliquely downward and outward for about 10 cm. As soon as the skin is cut, the thin lamella of the latissimus dorsi is exposed, and cut through or turned back, or its fibres may be pulled apart in their course. This at once exposes the tendinous area at the upper outer angle of the quadratus, formed by the conjunction and attachment of the oblique muscles. This white inverted triangle, the superior lumbar triangle, I consider to be the important objective point in opening the loin. On reaching this an artery forceps is pushed through the tissues and opened, when upon withdrawing the forceps, the retroperitoneal fat protrudes. The opening is now enlarged and drawn widely apart by inserting the fingers and thumbs first of one, then of both hands. In this way by a blunt dissection the kidney may be exposed, and removed without using a single ligature to any bleeding vessel in the abdominal wall. If it is desirable to make a larger incision, this is done after securing the largest possible opening by a blunt separation of the parts by the fingers as just described, and then separating the external oblique muscle in a direction downwards and for wards in the same manner, and incising the internal oblique. This, which I call a frying-pan opening, gives a maximum space for reaching the retroperitoneal structures. The incision may be enlarged in an upward direction by removing the last rib.

When only the kidney is to be removed, I free the ureter as far down as possible, say about 10 to 12 cm., and crush it with a clamp cautery and divide, or I invert and suture the lower end. After freeing the ureter, the renal vessels are more easily accessible (Hunner) and I prefer to approach them from behind, ligating each separately well away from the kidney. If the kidney is full of pus it is best to evacuate this early, and to deal with the collapsed organ.

In doing a nephro-ureterectomy, I have for years past followed the plan now known as Israel's operation, namely, of detaching the kidney above and the ureter as far as the brim of the pelvis, through an incision such as I have just described,