

The kidneys are maintained in position by the fascia and fat which surround them, by the general pressure of the abdominal viscera—the important intra-abdominal pressure—and to a minor degree by the vessels which are proper to the organ. Much support is also derived from the configuration of the lumbar recesses in which they are lodged.

The peritoneum, which passes over the ventral surface of the kidney, has little effect in holding the gland in place. The serous membrane is itself readily rendered mobile, and it has but an indifferent hold upon the fascia and fat in which the kidney is lodged.

There are in this fascia certain strands of condensed tissue which pass from the structures forming the posterior abdominal wall to the fibrous capsule of the kidney. These appear to me to take a prominent part in the fixation of the organ. They vary in consistence, are often tough, and are then encountered by the finger in clearing the kidney from the surrounding tissues in the operation of nephrectomy. It may be said, however, that Wolkow and Delitzin are of opinion that these bands have little or no effect in supporting the organ.

The normal kidney moves on respiration. This is a point insisted upon by most writers. Those who are specially impressed by the mobility of the gland allude to the passage of the kidney up and down when exposed through an incision in the loin. Kidneys so exposed are—it is to be hoped—seldom normal, and the posture of the patient during operation as well as the respiration under anesthesia is also not normal. Dentu states that the range of the up-and-down movement of the normal kidney during natural breathing is from 3 to 5 cm.

This I cannot think is accurate. It many times falls to the lot of the surgeon to have to examine the kidneys during an abdominal operation, and many times the organs so palpated are normal. The occasion is not suited for the making of physiological observations, but the impression such examinations have left on my mind is this—that the movement of the left kidney on inspiration is often not to be appreciated, while that of the right is slight and always much less than the respiratory movement of the liver. A range of movement of 3 to 5 cm. I have never witnessed in normal organs.

*Etiology of Movable Kidney.*—The etiology of movable kidney is obscure, and little is known of the precise tissue-changes which lead to the prolapse of the organ. This can be said, that it is infinitely more common in women than in men, that it is more frequently met with on the right side, and that most of the cases fall between the ages of 25 and 50, or are at least first discovered between those periods.

Glénard states that out of 148 cases which came under his