TRANSPERITONEAL NEPHROPEXY*

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THE normal position and relationship of the abdominal viscera depend, primarily, upon the integrity of the abdominal wall. Of secondary importance is to be considered their ligamentous attachments and their variations in specific gravity. All the abdominal viscera float more or less freely within a cavity having a fixed and rigid back and base, with a highly elastic cap, sides, and front.

Through their ligamentous attachments must, naturally, come their blood and nerve supply. The solid viscera are rather firmly attached by short supports in fixed localities, while the hollow viscera with much longer supports have a more indefinite topography or position. It is obvious then that anything which tends to disturb the normal position of any one of the abdominal organs will have a distorting influence on all the others. And as a physical proposition those organs of shortest attachments will be, naturally, the first to have nerve irritation and to present symptoms. It is a logical sequence then that, among the first viscera to cry out against the disturbing features of visceroptosis, is the kidney. The right one is most frequently involved. This occurs more often in women than in men. Men rarely have it.

We have in common use the terms, movable or palpable; motile or hypermotile; floating or wandering kidneys; all of which refer to the degree of motility but bear no relationship to symptoms. They serve their purpose in nomenclature, but aid us little in practical therapeutics.

Subjective symptoms are not in accord with the degree of mobility or displacement. Some cases of slight distortion have many symptoms while others of great displacement have none. There is nothing pathognomonic of this condition. Objective signs may be confused with pathologic processes of the gall bladder, stomach, duodenum, colon—including the appendix and teratomata. While subjective symptoms may be associated with most everything. All sorts of secretory, sensory and motor disturbances of the gastrointestinal tract, disturbances of circulation and urinary output, pelvic symptoms, headache, vertigo, general exhaustion with dragging pains in the loins are a few of the many symptoms associated with this disease. And while they may be properly associated with this disease, many of them may be just as properly associated with other pathologic conditions in and near to this region.

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No operative treatment, therefore, should be undertaken without a most careful and painstaking investigation, and should be made with an incision which gives the widest field for observation and pathologic differentiation. Such an incision is logically in front and not in the back. As a result of unsatisfactory experiences with the lumbar incision I abandoned it fifteen years ago, and during these years have confined myself wholly to a method which may be described as follows:

Open the abdomen by an incision a fingerbreadth below the costal border, extending from the median line to near the tip of last rib. Elevate the liver and gall bladder by means of a broad retractor in the hands of the first assistant, while the second assistant with a gauze pad introduced into the abdomen holds downward and inward the hepatic flexor of the colon. Proper traction by the two assistants makes taut the peritoneal reflection lying in front of the kidney and brings it well into view. The peritoneum overlying the kidney is now incised for the distance of about four inches. Through this incision the hand is introduced around the fatty capsule and after free dissection, the kidney and its capsule are lifted outside of the abdominal wound. Looking into the bed from which it has been removed, there will be seen some loose areolar tissue lying upon the reflection of the diaphragm, the transverse fascia and the quadratus lumborum muscle. With a pledget of gauze in the jaws of forceps, this should be wiped well away from these structures, so that the fascia is perfectly clean. If this be carefully done no hemorrhage or oozing will occur and the pocket which the kidney is to occupy will be dry.

Turning now to the kidney itself which lies outside of the abdominal wound, the fatty capsule is completely removed from its posterior aspect, exposing the fibrous capsule underneath. Hemorrhage may occur from a few small vessels which should be carefully ligated.

Next, incise the fibrous capsule from the upper to the lower pole carrying the incision close to the hilum. Separate now, the fibrous capsule from the kidney substance, denuding the entire posterior aspect of the kidney of its fibrous capsule so making a fibrous flap everywhere free except at its base, where it still remains attached to the major curvature or convex surface of the kidney. Care should be exercised in removing the fibrous capsule lest wounding of the kidney substance and troublesome oozing occur.

A suture of No. 2 chromic catgut 20 inches in length is now carried through the upper end of the flap of fibrous capsule which still remains outside of the abdomen and is next caught in the fascia transversalis or quadratus lumborum high up in the bed from which the kidney has been removed.

A second suture of the same character is likewise introduced through the lower end of the fibrous capsule and carried down and made to

catch up a second portion of the fascia or the quadratus muscle in the lower aspect of the cavity. A third suture is again introduced through the same structures but midway between the two former sutures. Clamps are attached to either end of these sutures as they are introduced.

The kidney is now restored to its normal position by being dropped back into the abdomen through the incision in the posterior peritoneal reflection. Clamps are removed from the ends of the sutures and they are securely tied. Thus the kidney is suspended with its denuded posterior aspect lying against the quadratus lumborum muscle to which it has been attached by three sutures through a flap of its fibrous capsule. Under the eye of the operator it has been restored to its normal position with no distortion of its blood and nerve supply and with a free ureteral drainage.

A running suture of plain catgut next closes the wound in the peritoneum overlying the kidney. The edges of this wound should be turned in so as to prevent the formation of adhesions. The abdominal wound may be closed in the usual manner.

I have been fixing the kidney by this method for fifteen years. I have had no case return to me with failure. In two cases infection necessitated drainage for a time. Two cases were relieved who had been operated by the lumbar route with low fixation and increase of symptoms.

I feel warranted in recommending this operation: 1. Because it establishes regional and general abdominal diagnosis. 2. Because through its primary incision much other work can be done on other abdominal viscera, if necessary. 3. Because it permits the operator to place the kidney where it belongs. 4. Because the lapse of time since its inauguration has been sufficient to prove its value.