AN ALTERNATIVE OPERATION FOR STRANGLATED FEMORAL HERNIA


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In this discussion of the operative treatment of strangulated femoral hernia we are concerned solely with the “high” type of operation, the “low” operation being considered the procedure of choice when strangulation is absent. A variety of procedures is available and it is proposed to mention those in common use prior to the description of a method which we have found very convenient.

Of the high operations using an approach through the inguinal canal the first is thought to have been done by Annandale in Edinburgh in 1875, but the method is usually associated with the name of Lotheissen who recorded twelve cases in 1898 which were repaired by this operation. The steps of the procedure are worth recalling as a basis for comparison with the operations employed by Cheatle, Henry and McEvedy and with the operation which we have been using. The skin incision is placed 2 or less above the medial half of the inguinal ligament. After the incision has been deepened, the lower skin flap is mobilised and strongly retracted downwards to expose the femoral hernia. The sac is isolated after its coverings have been divided and is then opened at its fundus. Fluid present is carefully removed by suction and bowel or omentum examined. The next step is to open the inguinal canal so as to enable the sac and its contents to be delivered above the inguinal ligament. Accordingly the external oblique aponeurosis is divided and the spermatic cord or round ligament is mobilised to expose the fascia transversalis, the inferior epigastric vessels and a possible abnormal obturator artery which if found is ligated. An opening in the fascia transversalis is made by blunt dissection and the neck of the hernial sac is then revealed. The conjoined tendon is retracted upwards and the peritoneum above the neck of the sac is opened. At this stage it is usually necessary to divide the lacunar ligament (Gimbernat) so as to facilitate upward delivery of the sac contents. Bowel is then either resected or returned to the abdomen and omentum is similarly dealt with. The sac is then brought up from below and excised after which the opening in the peritoneum is closed. The formal repair of the hernia consists in suturing the conjoined tendon to the pectineal ligament of Astley Cooper, taking care to avoid injuring the external iliac vein. The external oblique is then repaired after which the wound is closed. The chief advantage of the Lotheissen operation is that it allows access to the sac at its highest point and also direct access to the femoral ring. Its main disadvantage is that it
involves a very wide opening (and therefore weakening) of the inguinal canal. It is not unusual to find a direct inguinal hernia occurring at the site of a previous Lotheissen operation.

Lenthal Cheatle\textsuperscript{4} was among the first to use an extraperitoneal approach for the radical cure of inguinal and femoral herniae. Although he did not use the operation associated with his name in cases of strangulated herniae, it is worth quoting his opening descriptive sentences:—

"Several cases in quick succession presenting difficulties in the efficient excision of the sac led me to devise a new method by which these and other troubles could be easily and successfully dealt with when they arise.

I approach and reach the back of the inguinal canal from a middle line incision in the lowest part of the abdominal wall. \textit{Unless compelled by some complication I do not open the general peritoneal cavity.} All the work is done in a space made in the sub-peritoneal tissue. I have operated in this way upon 41 patients. In the first nine I made all the incisions longitudinal. In the remainder I have traversed the abdominal wall by Pfannenstiel's method..."

The late Professor A. K. Henry\textsuperscript{5} also used an extraperitoneal approach to the femoral region employing midline sub-umbilical incision. His first case was the unusual one of bilateral femoral hernia and the approach gave equally good access to both femoral canals. He stripped the unopened peritoneum from the sides of the bladder and from the pelvic wall, and obtained a view of both sacs, which stood out from the peritoneum, as he described it "like horns from a snail". He closed the canal by turning up a triangular flap of fascia pedicled in front from the pectineus muscle, and sutured it to Poupart's (inguinal) ligament. Jennings, Anson and Wright\textsuperscript{6} were favourably impressed with Henry's operation and made useful suggestions concerning the operative technique of the extraperitoneal approach for the cure of inguinal and femoral herniae.

McEvedy\textsuperscript{7} in 1950 described an operation employing a vertical skin incision. The anterior rectus sheath is divided 2 cm medial to the linea semilunaris and the rectus muscle is retracted medially. Next the transversalis fascia is divided to display the peritoneum on which the inferior epigastric vessels are seen as they run upwards and medially. The neck of the hernial sac will then be seen as it enters the femoral canal.

In strangulated herniae it will be first necessary to isolate the sac below the inguinal ligament and this requires strong downward retraction of the lower margin of the wound. The sac is then opened at its fundus and its contents dealt with, after which it is drawn upwards through the femoral ring which is then obliterated by suture of Poupart's ligament to Cooper's ligament. Wound closure consists in letting the rectus muscle fall back into place and suturing the anterior rectus sheath.

McEvedy's operation has all the advantages of the trans-inguinal approach and gives better access without weakening the inguinal canal.

\* The italics are ours.