

On November 29th, fifteen days after the operation, he was discharged well. He was seen December 15th, and the wound found to be solid, with no impulse on cough.

July, 1895. Has been in good health. No return of hernia.

Umbilical Hernia, Operation, Recovery.—H. M., age fourteen months, entered November 12, 1894. He has a congenital navel hernia, varying in size from a walnut to a small orange.

November 13th. The umbilicus was excised by an elliptical incision. The fascia and peritoneum were dissected out and the bowel returned to the abdominal cavity. The peritoneum and fasciæ were closed in separate layers by interrupted silk, and the rest of the wound by interrupted silkworm-gut. A dry dressing and straps of adhesive plaster were applied.

On the second day the bowels were moved by enema of suds and glycerine. On the sixth day the sutures were removed. The wound had healed by first intention, and there was no impulse on cough or crying. The adhesive straps were re-applied, and he was discharged well, fifteen days after the operation.

His diet for the first two days was malted milk in hot water. After the second day he was given milk and soft solids, care being exercised.

July, 1895. Scar perfectly solid. No sign of any recurrence.

In three other cases in which answers have been received to my inquiry there has been no return of the hernia at periods varying from six to eighteen months. In one case in which the sac of the hernia being small, it was left untouched, the patient writes that he is more troubled than before, as the opening is smaller and there is more difficulty in returning the hernia. The hernia reappeared a few weeks after the operation.

(To be continued.)

SUGGESTIONS IN REGARD TO THE OPERATIONS FOR THE CURE OF INGUINAL AND FEMORAL HERNIA.

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THE success of hernia operations depends upon the nice adjustment of the parts to stand a strain which has already once overcome the barriers offered by nature. Niceties of technique make or mar this success, and any suggestion which may perhaps make the closure of hernial canals more sure, has, therefore, a certain importance, even when it proposes but slight alterations in previous methods.

It is on this account that the following modifications of existing methods are brought to the attention of operators, with the hope that they may contribute something to increasing the chances of cure in this difficult class of cases.

INGUINAL HERNIA.

All operations for the radical cure of inguinal hernia showed themselves to be of but uncertain value until the plan of transplantation of the spermatic cord was suggested and carried out by Halsted and, in a different form, by Bassini. While it is perhaps, even yet, too soon to speak positively of the measure of success which will follow these new methods of operating, still, enough experience has been accumulated

to show that the spermatic cord is indeed the key to the lack of success by the older methods, and to demonstrate the value of putting the opening through which this cord emerges at a point where it is more out of the line of pressure than in its natural position.

By Halsted's method the cord comes through all of the layers of the abdominal wall in one straight canal and then runs downward beneath the skin. By Bassini's method the somewhat valvular arrangement which normally obtains in the inguinal canal is reproduced. The cord perforates the muscular wall, then runs downward between the muscles and the aponeurosis of the external oblique to finally emerge through this dense fibrous layer at about its usual normal point.

If the future history of these cases is to show that the short, direct canal furnished by Halsted's operation is not liable to dilatation, and that this method affords a reliable cure, then it is quite unnecessary to trouble ourselves to re-establish an oblique canal.

If, however, it is found to be of advantage to have the canal more or less valvular in arrangement, it may well be doubted, I think, whether we should follow Bassini and produce a replica of the canal furnished by nature, for the unsatisfactory nature of that canal is attested by the frequent occurrence of hernia. Its downward direction makes it rather easy for the abdominal contents to force down into and along it. It would, therefore, seem better to make the new canal run upwards and outwards so that the downward pressure of the bowels would act at right angles to its axis and so would tend to force its walls together. Made in this way it would work in a more perfectly valvular way than the natural inguinal canal.

The operation which I propose, and which I have carried out in one instance,¹ is to slit the aponeurosis of the external oblique muscle well up towards the anterior superior spine of the ileum, exactly as is done in Bassini's operation, to tie or suture and cut off the sac on a level with the peritoneal surface; then to suture the internal oblique and transversalis muscles and transversalis fascia on the inner side to Poupart's ligament on the outer side. These stitches may include the edges of the slit in the external oblique aponeurosis thus closing the old inguinal canal.

Finally, to close the upper remaining part of the slit in the external oblique aponeurosis with a continuous buried suture, which shall also include the upper edge of Poupart's ligament. This closure is to be done from below upward, and the spermatic cord is to be brought through at the highest point that it can be made to reach with moderate traction. Usually, it emerges at about the point where it would perforate the abdominal wall by Halsted's method.

By this operation the muscular wall of the abdomen is not weakened by any incision except that through the aponeurosis. The cord is entirely diverted from the old canal which is obliterated by stitches. The new canal pursues an upward and outward course through the abdominal wall, which, as I have pointed out above, seems to have decided advantages over the canal running downwards and inwards; and it would seem possible, too, that this method of closure would afford a canal of greater strength than the short, straight one afforded by Halsted's operation.

¹ Since writing the above I have heard from Dr. J. H. Harte, of Philadelphia, that he has carried out this plan in about fifty cases, with entire satisfaction as far as the immediate result went.

FEMORAL HERNIA.

The difficulties attending the radical cure of femoral hernia arise from the shortness of the canal, from the proximity of the femoral vein, which interferes with the extensive placing of stitches about the femoral ring, and, lastly, from the fact that it is made up of tendinous structures that do not readily adhere by a permanent union when sutured.

The healing together of the fibrous walls of the canal is made more difficult by the necessary tension of the stitches pulling upon rigid portions of the fascia and ligaments. This tension is not great enough to prevent the approximation of the walls of the canal, as is shown by the very complete closure which Dr. Cushing² obtained by his double method of suturing;

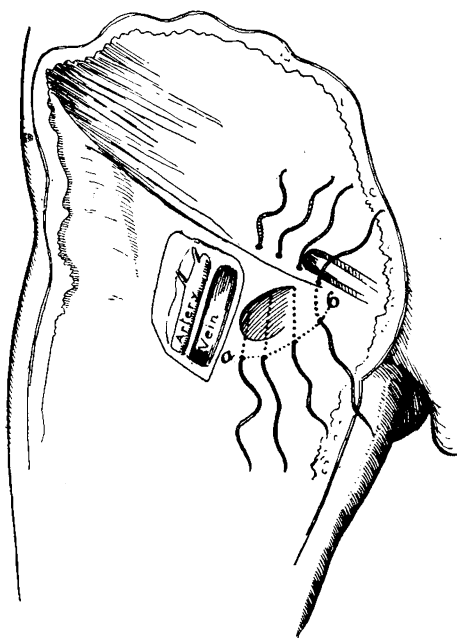


FIG. 1.

The curved dotted line *ab* represents the line of incision through the fascia. The dotted parts of the sutures run beneath the fascia, and, when knotted, they lift the flap of this fascia and attach it firmly to Poupart's ligament in the manner seen in Fig. 2.

but when rigid tissues are pulled together in this way, it is well known that the sutures are apt to cut through quickly.

The suggestion I have to offer is that previous to applying sutures, a semicircular incision shall be made through fascia lata just beneath the saphenous opening, the saphenous vein having been previously tied and cut away. The fascia can now be separated beneath so that the lower wall of the canal can be readily drawn upward against the unyielding portions of Poupart's ligament where it can be held with buried sutures without the least tension, and the whole canal is thereby tightly closed.

The following case illustrates the benefit of this method of operating: Miss A. O'N., aged twenty-six, was seen by me in January, 1894, in consultation with Dr. Joseph Williams, of Charlestown. She had a troublesome femoral hernia which could not be kept in place by any truss which she could wear, and,

which, on several occasions, had become incarcerated with symptoms of strangulation and had only been reduced with considerable difficulty. Radical operation for its cure was advised and consented to. This was done January 29, 1894.

The sac of the hernia was pulled down, and tied off on a level with the peritoneal cavity. In order to allow of the approximation of the walls of the canal without tension, the pubic portion of the fascia lata, just beneath the saphenous opening, was incised. Stitches of silkworm-gut were then passed deeply through the lower wall of the canal coming out beneath this flap of the fascia lata so as to hold it up firmly against Poupart's ligament. This completely obliterated the canal. The skin was then united by another row of interrupted sutures.

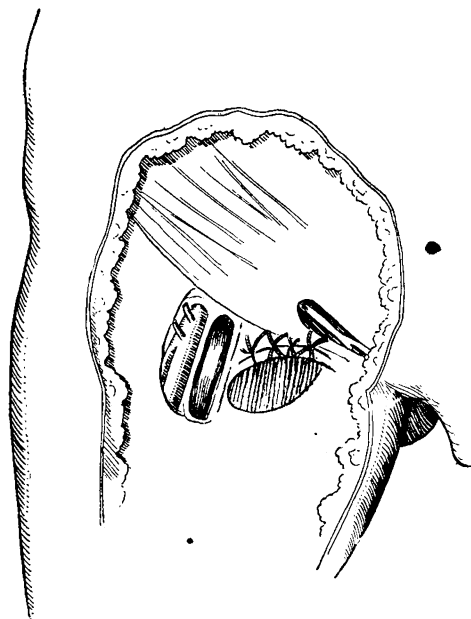


FIG. 2.

This diagram shows the manner in which the flap of fascia is pulled up against Poupart's ligament. Through the opening left below where the sutures are knotted, the fibres of the pectineus and the tendon of the adductor longus come in view. The surface of the muscle uncovered is so small and is so near to its attachment, that there would seem to be little danger of hernia of the muscle through this opening in its sheath.

Healing was by first intention; but about a month later a little abscess formed at the seat of operation, and, breaking, left a small fistulous opening. This was doubtless due to the irritation of the silkworm-gut. The suture material that I prefer is kangaroo or whale tendon, and this is the only case in which I have used silkworm-gut. I did so in this case hoping to have the support of the stitches for a longer time than with any of the more absorbable materials. I saw Miss O'N. a year later. She had still a very minute discharging sinus, which gave her little or no annoyance and had no sign of any return of the hernia.

MEDICAL MEN AS CABINET MINISTERS. — The new French Ministry includes three representatives of the medical profession. M. Berthelot, the Minister for Foreign Affairs, M. Viger, the Minister of Agriculture, and M. Combes, Minister of Public Instruction, are Doctors of Medicine.

² Boston Medical and Surgical Journal, December 6, 1888.