J Obs Gyn Brit Emp 1908 V-14

TECHNICAL MEMORANDA, OPERATIVE AND OTHERWISE.

(Under this heading will be published from time to time notes on points of practical interest in regard to methods of treatment, operative and therapeutic, and on the general management of Obstetrical and Gynæcological cases in hospital and private practice.)

The Subcutaneous Catgut Suture.

By W. E. Fothergill, Manchester.

It has often been remarked that "there is no bad beer; but that some kinds of beer are better than others." It might be said with equal truth that there is no bad way of closing incisions in the abdominal wall; but that some methods are better than others.

Through and through suture with silkworm gut was long considered good enough for all practical purposes. To this day it is always used by some operators; and all operators use it sometimes; as, for instance, in old and feeble patients who must be returned to bed without any loss of time.

At present, most operators doubtless suture the abdominal wall in layers; and it is safe to say that the majority unite the skin and the subcutaneous tissue by means of interrupted sutures, some deep and some superficial; though a continuous superficial suture for uniting the skin edges is employed by a few.

The subcutaneous suture for closing the skin incision is described and figured in various text-books, and is used by certain surgeons. It has not, however, become popular in this country. The writer has, by way of experiment, used the subcutaneous stitch for closing every incision made by him during the past year, with the exception of one or two emergencies. The result is that he has formed a definite conclusion to the effect that this method is a trifle better than any other which he has tried or has seen. The technique employed has generally been as follows. The peritoneum is closed with a continuous suture of fine silk or catgut, a "postmortem" stitch being used. (The straight needle enters on the serous surface every time, first on one side of the wound then on the other.) This is very rapid, and no raw edge whatever remains in contact with the contents of the cavity. The fascia is united neatly and firmly by a sufficient number of interrupted stitches of medium silk or of hardened catgut. These

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buried stitches have to bear any strain which may be put on the wound during healing, therefore strong and fairly durable material must be used. A long piece of medium catgut, which has not been hardened in any way is next used with a long straight needle. It enters the skin an inch or more away from the upper angle of the wound, so as to pass through a quantity of healthy uninjured tissue. It enters the wound exactly in the angle and just under the skin. The needle point is then passed just under the skin on one side, from the wound and back again into the wound, one-third of an inch being about the length of the stitch. The point then enters under the skin at the other side of the wound exactly opposite its point of emergence, and returns into the wound a third of an inch lower down. The catgut is thus made to zig-zag across and across just under the skin until the lower angle of the wound is reached. It then leaves the wound as it entered—through an inch or more of healthy tissue. On pulling upon the two ends of the catgut the skin margins generally come into and stay in close and exact apposition. There is no need to fasten the ends of the catgut in any way in most cases. If the incision extends into the region of the pubic hair, the lower angle may tend to gape. If this occurs, the catgut may be taken a time or two through the two margins of the wound to fasten the suture off firmly. In a few patients who are fat or who have very elastic skins, it is necessary to supplement the subcutaneous suture with a few interrupted stitches, but this is quite exceptional. At the end of a week or ten days the dressing is removed. As by this time absorption has occurred, the ends of the catgut simply come away with the dressing. The wound is not washed until a few days later. In the meantime it is simply covered with a layer or two of gauze or cotton wool. In four cases the incision has failed to heal by first intention. In two of these the operation was done in a hurry for ruptured ectopic gestation, and there was no proper disinfection of the skin over night. In the other cases there was an excessive deposit of fat on the abdominal wall. In these cases there was slight suppuration, which was quite superficial, and which did not affect the buried sutures uniting the fascia. Healing occurred without delaying the convalescence of the patients, and the scar was linear in each case.

The advantages presented by this method of suture are as follows:—

(1) It is rapid as compared with other methods.

(2) It leaves a less conspicuous scar than other methods.

(3) There are no stitches to be removed, which is a great advantage in the opinion of timid patients who dread the removal of stitches as much as the operation itself.

(4) If suppuration occurs it is merely superficial and does not affect the deeper portion of the wound. The risk of hernia is thus diminished.

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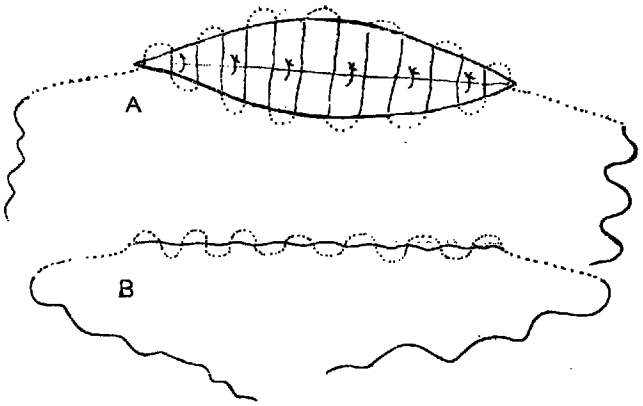

Fig. 1.—A. Subcutaneous Suture inserted. B. Suture after the ends have been pulled upon.

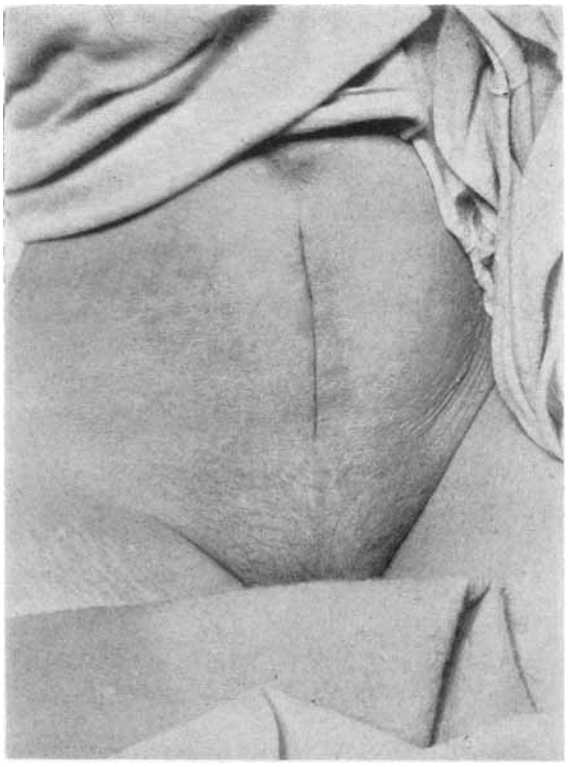

Fig. 2.—Scar photographed on the tenth day, on removal of the dressing and before touching or washing the incision.

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(5) Suppuration is less likely to occur in this than in any other form of suture. The source of infection, at the present time, is generally the skin of the patient. Every hole made through the skin into the wound is a possible origin of infection of the wound. Every suture which passes through the skin into the depth of the wound is a possible track by which superficial suppuration may spread to the depth of the wound, to infect the buried sutures and to impair the union of the divided fascia.

In the subcutaneous suture, apart from the incision itself, only two holes are made through the skin. These are far removed from the angles of the wound, and the catgut passes from them into the wound through an inch or more of healthy tissue. Suppuration at the entrance or exit of the catgut therefore does not spread so far as to reach the wound. In ordinary scars it is often possible to count twenty stitch holes on either side. It must also be remembered that constriction of the skin by numerous interrupted stitches also impairs the blood supply of the wound and so favours suppuration. Again the cutting of the skin by tight sutures often opens up channels for infection. With no stitch there can be no stitch abscess. This fifth and last-mentioned advantage is the most important, and is that on which the writer wishes to base his humble suggestion that the subcutaneous continuous suture is worthy of extended trial by all abdominal surgeons.

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