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ON THE RADICAL CURE OF INGUINAL AND FEMORAL HERNIA BY OPERATION.*

BY ALEXANDER HUGH FERGUSON, M.D., C.M.,

Professor of Surgery in The Post-Graduate Medical
School and Hospital of Chicago; Surgeon to the
Charity Hospital and Chicago Hospital.

The familiar drawings which I here place before you, representing six different, well-recognized and accepted operations now in vogue, not to mention the many modifications recommended, all directed to the radical cure of hernia, furnish me with a reasonable excuse for presenting to the members of the Association of my *alma mater* a subject on which surgeons hold such a diversity of opinions. The various procedures to cure hernia—operative and otherwise—that have been practiced from time immemorial till the present have been so thoroughly described and demonstrated to us by not a few American and European surgeons, that I do not deem it necessary to inflict upon you to listen to any of the ancient history of this subject, nor shall refer to but the more recent operations by the open method, and of these, only those that are being performed to-day the world over.

A careful study of the anatomy and pathology of the abdominal wall in hernia, and an inquiry into the various master operations, bring me to the conclusion that not one operation yet recommended fulfils all the indications requisite for a radical cure. In this decision I am supported by a study of the relapses, and by my own experience. It is surprising what little attention, in works on hernia, is paid to the pathology of the abdominal wall. It is the dyke that must be walled up and cemented to prevent leakage. Let the passive intra-abdominal pressure predisposing to rupture be what it may—elongated mesentery, large omen-

tum or what not—we cannot hope to lessen that to any extent; but we can strengthen the abdominal wall, at the seat of rupture, in such a manner as not only to withstand the passive, but also, in the vast majority of cases, resist the active pressure within the abdomen while straining, lifting, etc. In aiming at a radical cure, it is most important to obtain more strength at the seat of rupture than Nature had provided in these cases. If we simply restore the normal rotundity of the peritoneum, the internal ring and canal, as they were in them before the rupture, it is clear that under the same conditions and with similar causes at work, a recurrence would be almost sure to follow.

Let us briefly consider the anatomical and pathological weak points in the abdominal wall in ruptured cases of the oblique inguinal variety.

1. *The dimpling at the internal ring.*—This is the congenital depression in the transversalis fascia at the origin of the spermatic cord, where the vas deferens and the vessels meet. The mere passage of such a vascular cord would lessen the resisting power of the fascia, but when the structures which form it come from different directions, an additional condition, a V-shaped space exists, which predisposes to the occurrence of a rupture. The peritoneum lining it has very little to do with the strength of the belly-wall. It is the transversalis fascia that is the all-powerful structure. Its resisting quality is beautifully demonstrated when cutting the abdominal wall while doing an operation or a post-mortem, especially when the intra-abdominal pressure is great, due to the presence of growths or the accumulation of gas, for just as soon as the transversalis fascia is severed, out bulges the peritoneum. The internal abdominal ring is formed by this strong fascia, and once the internal pressure overcomes its resistance here, and it is left without artificial support being supplied, a complete rupture is sure to occur. The hernial protrusion acts like a wedge from within outwards, and forces the structures surrounding the deep ring and inguinal canal asunder.

2. The transversalis fascia is, in old-standing cases, eventually pushed downward, inward and backward, until the lower border of the ring not infrequently reaches the level of the pubic bone. The small normal infundibuliform process has be-

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