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COMMENT

Comment to: "Factors associated with hernia recurrence after laparoscopic total extraperitoneal repair for inguinal hernia: a 2-year prospective cohort study." By Schjøth-Iversen L. (Hernia. 2017 Jul 27. doi:10.1007/s10029-017-1634-7. [Epub ahead of print])

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Dear Editors:

We read with great interest the recent article by Schjøth-Iversen [1], published on Hernia. The authors reported that medial hernias and obese patients were independent factors associated with higher recurrence rate after total extraperitoneal repair (TEP). And the authors suggested that "good surgical technique with precise dissection and correct placement of the mesh remains key points to prevent recurrences". We applaud for the authors' excellent work, and agree with their conclusion and suggestions on reducing recurrence rates after TEP. Meanwhile, we would like to give some clinical comments on this topic. "Good surgical technique with precise dissection and correct placement of the mesh" is a quite sound suggestion; however, it is too much of a universal suggestion for any surgical procedure to grasp the true essentials as how to improve the technique, since no one would "perform inaccurate dissection and implant the mesh improperly" when they confront a medial hernia in TEP procedure.

In laparoscopic inguinal hernia, the medial hernia should be regarded as a unique entity, two facts make them different from lateral hernias, the more medial location of the defect and the wider and relatively larger/straighter opening of the orifice. Thus, two modifications should be made in this condition. First, the mesh needs to be placed more medially to center the hernia defect. Secondly, it has been suggested that the dislocation of the medial aspect of the prosthetic mesh anteriorly into the dead space created by the weakened transversalis fascia is important for hernia recurrence [2], and this can happen in the early stage after laparoscopic repair. It can be caused by a sudden increase of the intra-abdominal pressure, such as during excess coughing [2].

Although it is suggested that in medial hernias, medial overlapping should be over 4 cm, furthermore, mesh fixation should be applied in big defects [3]. However, the Schjøth-Iversen L' present study, together another large volume trials with 11228 male patients [4], all clearly indicated that mesh fixation did not reduce the recurrence rate. Thus, a large size of mesh with sufficient overlap seems the only solution. We would like to introduce another alterative method to address this problem, which we initially used to reduce the formation of seroma [5]. We used the barbed-suture to close the medial hernia defect prior to the placement of the mesh, in doing this, we sutured the apex of the deep transversalis fascia together, completely eradicated the hernia cavity (Figs. 1, 2). By closing the medial hernia defect, the orifice for dislocation is closed, the surface of the effective interface is increased and the likelihood of adequate mesh ingrowth is enhanced. We assume that, this barbed-suture closing technique, together with the more medial placement of mesh, is an effective and practical method to reduce the recurrence in medial hernia repair after laparoscopic procedure (TEP/TAPP), and in this way, we can answer the question of "Good surgical technique with precise dissection and correct placement of the mesh".

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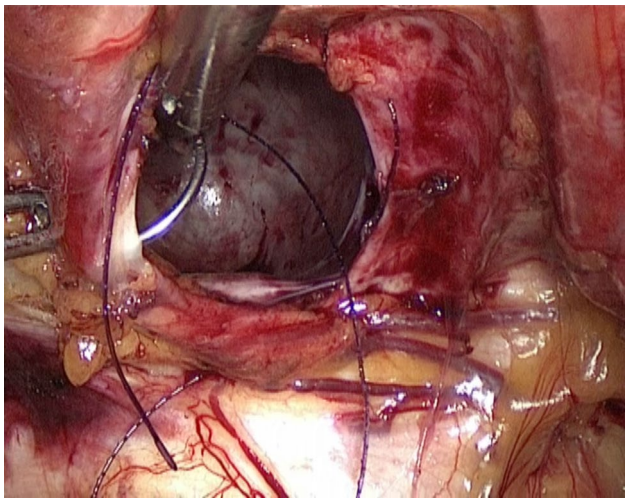

Fig. 1 Right direct inguinal hernia

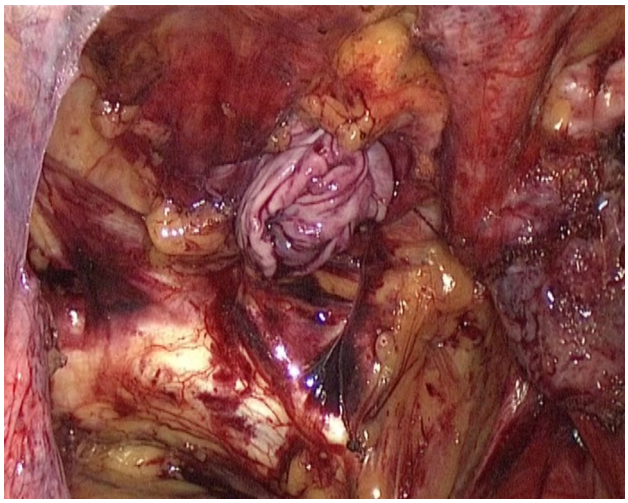

Fig. 2 The direct inguinal hernia defect was closed with barbed-suture prior to the placement of the mesh

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Human and animal rights This article does not contain any studies with animals performed by any of the authors.

Informed consent Informed consent was obtained from all individual participants included in the study.

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