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COMMENT

Comment on: association between surgical hernia repair techniques and the incidence of seroma

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Dear Editors

We read with great interest the recent article by Beckers Perletti et al. [1], published in Hernia. The authors reported that higher incidence of seroma was associated with the onlay ventral hernia repair procedure as compared to the sublay technique, and there is no significant difference between laparoscopic and open surgical procedure.

This is an important publication regarding ventral/incisional hernia repair, and several findings from the study stand out, therefore, we have some points for further discussions.

First, A variety of open or laparoscopic techniques were used for ventral/incisional hernia repair, however, which is not devoid of postoperative complications, especially in large hernias, failure of hernia repair is also common, with reoperations for recurrent hernia occurring at a rate of 12.3% after 5 years and 23.1% at 13 years [2]. As to the other complications, most of them are mesh-related complications, and some were serious, such as bowel perforation, enterocutaneous fistulas, chronic surgical site infection, late intraabdominal abscess, nonhealing wounds, hematomas, and bowel obstruction, most of these complications required reoperation [3]. Among these complications, seroma formation appeared to be a benign and less dreadful complication to both the surgeons and patients. Therefore, although seroma formation incidence was remarkable higher in one technique (onlay) over another one (sublay) [1], clinical recommendation and approach selection of ventral/incisional hernia repair usually be determined and individualized on many factors, including patients' factors, technique factors, and social factors, other than seroma incidence. One example is the laparoscopic inguinal hernia repair, which was associated higher incidence of postoperative seroma as compared to the corresponding open Lichtenstein technique [4–6], and both laparoscopic technique and Lichtenstein are recommended procedures for inguinal hernia repair.

Second, the seroma formation in ventral/incisional hernia was mainly related to two factors, the hernia cavity and the position of mesh placement. The larger area of tissue dissection, the larger volume of the defect cavity, the more superficial position of the mesh locates, the more frequent of the seroma formation is. As observed in endoscopic-assisted linea alba reconstruction, although the procedure was carried out with endoscopic approach, still higher seroma formation rate was observed [7], therefore, seroma after ventral/incisional hernia seems a marker of the superficial layer the mesh is implanted, despite open or laparoscopic approach was taken.

Third, despite the evidence that sublay mesh placement is associated with the lowest risk of surgical site infection, recurrence, and less seroma formation [8], however, the onlay technique has some unique advantages over sublay and endoscopic intraperitoneal onlay mesh approach (IPOM), for example, the mesh in onlay repair is placed in a quite superficial position, which is not only technical easy, but also the mesh-related complication is less severe, and which could be easily managed in case of mesh infection.

Fourth, if the onlay technique is performed, the seroma-preventing procedure should be performed concomitantly, the most often used method was closed suction drainage. In my practice, especially in complicated cases, the prophylactic use of vacuum assisted closure (VAC) was applied, which has the efficacy to prevent surgical site infection (SSI), hernia recurrence and other wound complications following closed laparotomy incisions following ventral hernia repair [9], and excellent results was observed.

Even though we felt the need to discuss these few points, we congratulate Beckers Perletti et al. for their work, and we hope that their contribution, in addition to this discussion,

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will be useful to surgeons involved in the treatment of ventral hernia repair.

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Declarations

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Informed consent This article does not include patients, and therefore informed consent was not applicable.

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