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Letter to Editor

Combined Laparoscopy and Finger Dissection of Sac in Paraumbilical Ventral Hernia Repair- A Technical Note

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To the Editor,

Laparoscopic ventral hernia repair is evolving rapidly worldwide to become a standard procedure. Many reports of excellent clinical results have made laparoscopic ventral hernia repair one of the fastest growing minimally invasive techniques.[1] It reduces the risk of complication related to intra-abdominal position of mesh and fixating devices.[2] With increasing experience, different theories and techniques have been described by different authors to overcome the intraoperative and postoperative problems.[3] This study shares the technique in a ventral hernia repair with thin skin overlying the sac.

A 42-year-old female presented with an irreducible paraumbilical ventral hernia of 3-4 cm size with mild tenderness for 20 years. It was apparent that due to its long duration, the skin covering the defect had thinned out. During single port laparoscopy, it was evident that the hernial sac contained incarcerated omentum, which was difficult to remove. Therefore, during dissection, the single port was used for instrument manipulation and the index finger of the non-operating hand was insinuated into the hernial defect from the anterior abdominal wall without damaging the external skin. The finger protruded into the abdominal cavity and could be seen as a protrusion into the abdominal cavity by the laparoscope. It was used to provide counter-traction while dissecting the omentum down into the abdomen. As it was giving excellent tactile sensation of the dissection, it acted as a guard against inadvertent injury to the overlying skin. The omentum was brought down by this method successfully and no remnant tissue was left behind in the sac. After this, the hernia defect was sutured close to reduce the dead space and thereby preventing seroma formation. The index finger was again used as a guide during suturing, thereby preventing the needle to puncture the skin above. A composite mesh of size 15 cm × 10 cm was used to cover the defect by more than 5 cm margin on all sides.

Effective surgical therapy for ventral hernias is challenging. Recurrence rates following primary repair range are as high as 25% to 49%.[4] As an alternative, laparoscopic techniques offer potential benefits.

The ports are made away from the defect so that the defect can be approached from all sides. After putting the laparoscope, the hernia site is determined and two other ports are made to dissect and reduce the hernia contents. The two hand instruments are inserted to dissect and reduce the content by traction and counter-traction.

In long standing cases, the skin covering the hernia sac gets atrophic and can get damaged during dissection.[5] There is a chance of puncturing the skin while forcefully pulling down the sac contents. Hence, if a finger is insinuated from above and used to provide counter-traction during dissection, it does not only help in better control of the dissection but also helps in the much needed tactile sensation required to prevent over-dissection and injury to the skin.

Composite mesh is put to cover the defect from all sides by a margin of at least 5 cm around the defect.[1] Sometimes, if the defect is large, few stitches are also put to estimate the defect, as done in this case.[3] Postoperatively, the patient is usually advised to use an abdominal binder to reduce chances of seroma formation.[6] This unique technique is useful in such type of longstanding ventral hernia.

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