Letter to Editor Open Access

Optimized Techniques may Avoid Groin Bulging after Huge Hernioplasty

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Letter to the Editor

Discomfort of groin bulging after huge inguinal henioplasty occurs quite frequently, and it's not easy to control its development and to choose proper treatment of it accordingly. The patient often feel some foreign body bulging when they enhance their abdominal pressure. Some serious situations always mean the upcoming hernia recurrence, which push both the patients and the surgeons into a dilemma. These presentations have aroused surgeons' attention.

The definite cause of groin bulging after surgery is still unclear. In general, huge groin hernia (hernia size >15 cm × 20 cm) may prone to result in the phenomenon of bulging due to large defective anatomy, weak transversals fascia, or relaxed peritoneal due to huge ascites or chronic cough etc., which also result in a bigger inner orifice. Sometimes, injury of the deep ring or improperly placement of mesh or plug during surgery may be another potential risk of groin bulging or hernia recurrence after surgery. As we all well known, loophole-blocking of transversalis fascia is of crucial importance for groin hernia formation and its evolving. Bassini's perse string suture and high ligation of hernia sac neck, to narrowing the inner ring, is key to success. Lichtenstein pins a mesh on the inner orifice. Preperitoneal approach aims to block outlet of hernia sac with a mesh or plug. Mesh really does matter now, but really not be-all. Huge groin hernioplasty is usually a big challenge with these techniques. Why not to expose the deep ring entirely and close it meticulously?

Recently, we have proposed an optimized techniques named as "The Hernia Sac Top" (HST) pathway with using soft light flat mesh (10 cm \times 15 cm in size, made in China) in inguinal hernioplasty that may avoid or reduce bulging without any damage to undesired structures especially the inner ring during surgery [1]. HST may also be suitable for various ascitic hernias. In addition, 3-D henioplasty [2], which pins hernia sac, mesh, orifice-closing and outside cover of hernia into an unremovable unit, provides a more stronger, supportive and firm groin area. We would like to introduce our experiences with each other and share our successful stories.

The major procedure consists of three steps as follows:

Firstly, authors expose huge hernia sac roof as previous procedure, and then open the hernia roof with a small incision, which is enough to spread into a finger as a supportable point. Based on this procedure, the distal hernia sac hidden in the scrotum cavity will be easily stripped off in its position if the processing is performed along the right gap between the deep layer and the superficial layer of the transversalis fascia. Otherwise, the processing more likely lead to bleeding due to "adhesion" to adjacent tissue. With the same skill, the proximal hernia sac is stripped off until its outlet (the inner orifice) is exposed entirely. We usually place a drainage tube in the pelvic cavity as long as there are huge ascites found during surgery. After that, the opened huge hernia sac should be closed with suture. At first glance, it may take too much time, but on second look, it's very merit to keep the integrity of both the transversalis fascia and the huge sac itself.

Secondly, we fix a flat mesh on the top of hernia sac. The mesh then was pushed into the peritoneal space as usual way. The inner orifice was closed with continue suture. During the period, the leash was also pinned on the thickened the edge of the inner ring with suture. After that, the excessive leash and the excessive tissue of outer side cover were cut away. The transversalis fascia reconstruction ultimately ended with a "natural" look.

Finally, another negative pressure drainage device was placed in the lowest position to avoid potential complications including scrotum hematoma or serama or free fluid collection or effusion etc.

After years of research, the outcome up, the cost down. The mix of traditional and improved techniques provide a optimized access to ensure the patients with a high-degree repair of huge groin hernia to experience a high-quality life in the future.

It appears to be nothing new for some hernia specialist ,but authors believe that the protection of the inner ring's integrity and its closure during surgery are of crucial importance, which have been ignored in many other methods. Authors recommend that their precise surgery based on the practice will make huge "henioplasty" reliable and satisfactory without little discomfort of bulging.

Of note, the HST pathway just provides an ease access to the preperitoneal space without damage to the natural edge of the inner orifice, but cannot settle all situations in practice. If you cannot separate the outside cover from the true hernia sac, you had better choose the other else methods.

In conclusion, the author's strongly recommend this optimized techniques can be learned and applied world widely. The inner orifice is just like the button hole in a cloth, the mesh and the real hernia sac are just like the easterner, if the edge of the inner ring is accidently damaged, the transversalis fascia would more likely become unsupportable. HST pathway offers a maximum protection of groin natural structure as expected, which hence provide a higher-degree groin compared previous methods.

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Declarations: All authors declare they have no conflict interests concerning on the letter.

Of note: If your journal provides us a free platform or a discount fee I can afford, we would like to submit the letter. Otherwise, we are sorry to withdraw the letter.

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