Laparoscopic Repair of Inguinal Hernia using Phasix Mesh
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Background and Aim: Traditionally inguinal hernias are repaired using synthetic permanent mesh and synthetic complications may downgrade the mesh of the repair. Most of the post-operative recurrence occurred in the first year post-operatively. The introduction of phasix mesh (poly-γ-hydroxybutyrate) which absorbable mesh in 14 months gives the chance to form layers of tissue to support the defect. Hereby, we report our initial experience of phasix in laparoscopic repairing of inguinal hernia.

Methods: Phasix mesh 15x15 is used to repair inguinal hernia laparoscopically in Medical City of King Saud University, Riyadh, Saudi Arabia.

Results: The techniques were done for 3 male patients in May 2016. The mesh is good to manipulate with good memory.

Conclusions: The mesh has the principal of tissue you need to use. Longer follow-up is needed to apply the phasix mesh repair in wider scale.

The decision about the mesh size in intraperitoneal onlay mesh Repair (IPOM-Plus)
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Objectives: This study aimed to evaluate whether before or after of hernia defect closure is thought to be best for the decision about the mesh size in intraperitoneal onlay mesh Repair (IPOM-Plus).

Material and Methods: The subjects were 11 patients receiving IPOM-Plus between June 2014 and February 2016, who were made a follow-up CT after surgery. Hernia defect was closed with non-absorbable suture (Size 1 Ethibond) at 1-1.5 cm intervals, using Lapa-Her-Closure. The mesh size was chosen so as to plus 5 cm outward from the hernia defect before closure. We measured the maximum distance of rectus abdominis muscles at follow-up CT after surgery for the index of dilation.

Results: The techniques were done for 3 male patients in May 2016. The mesh is good to manipulate with good memory.

Conclusions: The mesh has the principal of tissue you need to use. Longer follow-up is needed to apply the phasix mesh repair in wider scale.

Laparoscopic hernioplasty of large ventral hernia with transfascial sutures: Short term utility and outcome
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Introduction: The laparoscopic approach to repairing ventral and incisional hernias has gained increasing popularity worldwide. The approximation of the hernia defect during laparoscopic ventral hernia repair, prior to mesh fixation, provides a more physiologic and anatomic repair. We reviewed the experience of laparoscopic repair of large ventral hernia (diameter 5 cm) at a university hospital in the Nepal with particular reference to patients with massive defects (diameter 15 cm) transfascial closure.

Methods: A total of 72 patients underwent laparoscopic ventral (incisional or umbilical/paraumbilical) hernia repair between July 2014 and June 2016.

Results: The prevalence of conversion to open surgery was 4.2%. The prevalence of postoperative complications was 15.3%. Median postoperative follow-up was 18.2 months. A total of 9.7% cases suffered late complications and 2.8% developed recurrence. Forty-two patients underwent repair of defects 10 cm in diameter with no recurrence. Three patients underwent repair of ‘massive’ incisional hernia (diameter 15 cm) with a prevalence of recurrence of 1.4%. Ten patients with a body mass index (BMI) 30 kg/m² (range, 32-35 kg/m²) underwent laparoscopic repair without any recurrence.

Conclusions: Laparoscopic ventral hernia repair with transfascial suturing can be carried out safely with a low prevalence of recurrence. It may have advantages in obese patients in whom open repair would represent a significant undertaking. Laparoscopic ventral hernia repair may be used in cases of large and massive hernias, in which the risk of recurrence increases but is comparable with open repair and associated with low morbidity.

Keywords: Ventral hernia; Laparoscopic repair; Transfascial suture
Defect stabilization techniques in mesh repair of Ventral hernias
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This presentation focuses on hernia ring management in laparoscopic and open ventral hernia repairs. To achieve a low recurrence rate, three principles should be followed:
A) Sublay mesh repair B) Adequate mesh size C) Stabilizing the hernia defect. The first two principles are usually taken care of but not the third. Defect ring stabilisation can be done in the following ways:
1. Defect upto 3cm - Primary tension free suture closure of the defect with continuous 2-0 Nylon sutures.
2. Defects between 3-7cm (circular or oval)- Hernia ring sutured to the underlying mesh with interrupted sutures placed circumferentially around the defect margin using a hybrid technique.
3. Defects more than 7cm especially large oval defects with transverse diameter more than 7cm and length of any size- In addition to fixing the circumference of the defect to the mesh, the ring should be loosely darned so as to form a scaffolding or support for the underlying mesh. This prevents the mesh from bulging out through the defect.
4. For multiple Swiss cheese defects, a combination of the above techniques is to be followed- small defects closed primarily; larger defect edges fixed to the mesh circumferentially.
Thus the choice depends on the defect size and the judged tissue tension. If a large ring is not fixed, the mesh will ‘tent-out’ with time. This leads to a gradual enlargement of the ring, leading to recurrence.
Adopting these principles in the past 15 years, our recurrence rate have improved from 12 to 5%.

EXPERIENCE WITH CLOSURE AND NON CLOSURE OF DEFECT IN INCISIONAL / VENTRAL HERNIA REPAIR
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Purpose: Problems in laparoscopic ventral and incisional repair still persist. In addition to recurrence and postoperative pain there are certain issues still need to be tackled such as seroma and post-operative body image satisfaction. Therefore the study was taken up to compare the safety and efficacy in Laparoscopic Ventral and Incisional hernia repair with and without closure of the hernial defect.
Methods: We could select exclusively patients in each group after matching, parameters of age group, range of defect size and body mass index (BMI) and divided into two groups with 30 patients in each group. In one group of patients group A, we closed the hernial defect using partial thickness tension free technique before placing the mesh and in the other group B, we directly placed the mesh over the defect.
Results: The mean defect size in-group A was 31.2 sq. cm and 32.4 in group B. In-group A, 14 patients were satisfied with their quality of life and only one patient was not satisfied and this was the case that had developed seroma. In-group B only 3 patients were satisfied with their quality of life but 12 patients were not satisfied. 8 of these had postoperative seroma and 4 patients complained of persistent bulge.
Conclusions: We concluded that laparoscopic repair of incisional and ventral hernias with closure of defect followed by mesh reinforcement is an acceptable technique and superior to non closure of defect.

Trans-Abdominal Pre-Peritoneal (TAPP) approach for ventral hernia repair: An innovative, simple, cost-effective laparoscopic technique
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Laparoscopic Ventral Hernia repair (LVR) with intra-peritoneal onlay mesh (IPOM) is a well-established procedure for the treatment of ventral hernias. However, it is not without its draw-backs. The intra-peritoneal location of mesh placement has resulted in the use of expensive mesh technology involving a plethora of materials as well as anti-adhesion barriers and coatings. Yet the problem of adhesions to the mesh persists and its sequelae such as intestinal obstruction, mesh erosion, fistulization and mesh migration are still being reported. The cost of barrier meshes and fixation devices available is prohibitive especially in developing countries, and is often the factor responsible for the denial of the benefits of laparoscopic surgery to the economically weaker sections of society.
In this study, we compare an innovative technique for the laparoscopic repair of ventral hernia i.e. Trans-Abdominal Pre-Peritoneal (TAPP) approach, that combines the ideal site of mesh placement i.e. pre-peritoneal plane with a mesh material that has stood the test of time i.e. polypropylene with conventional IPOM. The use of polypropylene brings down the costs significantly while avoiding the risk of intra-abdominal adhesions as the mesh is completely covered by peritoneum.
Laparoscopic Transabdominal Preperitoneal Herniorrhaphy (TAPP) “How It Becomes the Better One”

Muhammad Iqbal Rivai

Two revolutions in the inguinal hernia surgery have occurred during the past two decades. The first was the introduction of tension-free open mesh repair (OMR) by Lichtenstein et al in 1989. The second revolution was the application of laparoscopic surgery during the early 1990s. A laparoscopic approach is particularly suited for the repair of bilateral or recurrent hernia. There are two standardized techniques for laparoscopic inguinal hernia repair (LIHR): (1) Trans-Abdominal PrePeritoneal (TAPP) and (2) Totally Extra-Peritoneal (TEP) repair. There are advantages and disadvantages of both TAPP and TEP procedures. The transabdominal preperitoneal (TAPP) approach provides an ideal opportunity to evaluate the contralateral side. Laparoscopic confirmation of normal inguinal anatomy without abdominal wall defects may avoid unnecessary anterior inguinal explorations. In addition, identification and repair of an occult contralateral defect can mitigate the need for subsequent herniorrhaphies should the patient become symptomatic. There is no statistically significant difference regarding postoperative complications, particularly recurrence rates and chronic groin pain. It is generally believed that TAPP is easier to teach and learn, although there is no level 1 evidence in the literature to support this belief. We need to generate more data comparing TAPP and TEP by conducting randomized, controlled trials.