

AS11-1

### Long-Term Outcome of 74 Complex Incisional Hernia Repairs Using Hybrid Technique

Yu-long Shi, Jing-lei Liu, Xiao-bi Guo, Guo-dong Lian

Department of Surgery, Shandong Provincial Hospital Affiliated to Shandong University, China

---

**Background:** Repair of complex incisional hernias poses a major challenge.

**Aim:** The aim of this study was to review the outcomes of the hybrid technique repair of complex incisional hernias using a synthetic prosthesis.

**Methods:** We reviewed patients undergoing the hybrid technique repair of complex incisional hernias from 2010 to 2016 in Provincial Hospital Affiliated to Shandong University. All of these patients experienced early conversion for the dense extensive intraabdominal adhesions. Patients were followed through clinic visits. All patients were followed up for mean 47 months (range 560 months). The data analyzed including patient demographics, operative parameters, complications, and recurrence.

**Results:** Altogether, 74 patients underwent a hybrid technique repair. There were 45 male and 29 female patients (median age of 69 y) with body mass index between 24.6 and 41.8. The overall size of the fascial defect was calculated between 64 and 198 cm<sup>2</sup>. All cases were performed by hybrid technique successfully with a mean operation time of (148.8±13.2) min and a mean time of postoperative hospital stay of (9.6±2.8) days. Abdominal wall pain occurred in 42 cases and all of them relieved basically in one month after the operation. 3 was found recurrence in all of these patients. During the follow-up period, neither wound/mesh infection nor trocar-site hernia occurred.

**Conclusion:** The hybrid technique was proved to be a safe and minimally invasive measure for complicated incisional hernias.

AS11-2

### Hybrid technique for large ventral hernia repair

Yi-wei Qiu, Nan Li

General Surgery Department, Tianjin Medical University General Hospital, China

---

**Introduction:** The advantage of laparoscopic repair of ventral hernia has been widely accepted today. However, for patients with large incisional hernia defects, laparoscopic approach alone would be very difficult. In this study, we combined laparoscopic and open techniques in large incisional hernias and showed superior cosmetic and functional results.

**Aim:** To demonstrate the operating technique and early follow up results of 22 patients with large ventral hernias operated with hybrid technique.

**Material and Methods:** Twenty two patients suffering from large ventral hernias underwent the hybrid technique for their repairs between January 2014 and March 2016. All of the operation strategies were pre-planned sequential laparoscopic (exploration and enterolysis) -open (removal of excessive skin and hernia sac; closure of the defect)- laparoscopic (IPOM) approaches. All of the procedures were performed using synthetic meshes in all 22 cases, among which, Bard Speramesh were used on 12 patients and Medtronic Parietex Composite<sup>+</sup> were used on the remaining patients.

**Results:** All of the patients recovered well and discharged as scheduled. Two patients had subcutaneous wound infections, no mesh infections were observed.

**Conclusions:** For patients with large ventral hernias, the hybrid technique is a safe and feasible way to achieve cosmetic and functional results.

AS11-3

### Hybrid technique for the treatment of incisional hernia: 58 cases report

Bing Sun, Xian-zhao Deng, Bo-ming Guo, Bo Wu, You-ben Fan, Jie Kang

Department of General Surgery, Shanghai JiaoTong University Affiliated Sixth People's Hospital, China

---

**Objective:** To explore therapeutic effect of a combined laparoscopic and open technique (hybrid technique) for the repair of incisional hernia.

**Methods:** A retrospective analysis was made in 58 incisional hernia during Jan 2011 to May 2016. Results All cases were operated on successfully and recovered uneventfully. The operating time was 40-160 (91.5±30.4) min. The diameter of the hernia ring was 2-25 (7.5±5.7) cm and the mesh size was 150-600 (273.2±108.5) cm. Postoperative complications included incision infection (n=3, 5.8%), seroma (n=2, 3.4%), abdominal pain (n=8, 13.7%), All of them were cured with conservative treatment. Postoperative hospital time was 6-15 (9.3±2.1) days. No patient developed massive haemorrhage, bulging, mesh infection. No recurrence occurred during the follow-up of 3-53 months.

**Conclusion:** Hybrid technique is a safe and effective procedure for incisional hernia repair especially for large complicated hernias.

AS11-4

## TROCARS PLACEMENT IN LAPAROSCOPIC REPAIR OF INCISIONAL HERNIA

Abdullah Aldahian, Fahad Bamehriz

*Bariatric Surgery, King Saud University Hospital, Saudi Arabia*

---

**Background:** Introducing the dual mesh in laparoscopic repair of incisional hernia is done through lateral port size 10mm to 12mm, which needs closure and may weakened the abdominal wall.

**Method:** We use 5mm trocars in repairing the hernia and introducing the dual mesh through trocar size 10-12mm in the defect (hernial sac), moreover excising the hernial sac and repairing the defect. The procedure is done as day surgery.

**Results:** The technique is used for 40 patients over 2 years. No infection, lymphocele and no recurrence.

**Conclusion:** The new technique is easy, logic, through excision of the hernial sac and closure of the defect are preferred. Longer follow is needed to assess the technique.

AS11-5

## Hybrid laparoscopic repair of complex ventral hernia

Vandana Mann Soni, Pradeep Chowbey, Rajesh Khullar, Anil Sharma, Manish Baijal

*Institute of Minima Access, Metabolic and Bariatric Surgery, Max Hospital, India*

---

**Aim:** In laparoscopic intraperitoneal ventral hernia repair (IPOM), certain situations like divarication and dense adhesions may preclude sound laparoscopic repair. Several studies talk of limited conversion to manage such complex situations. We present our experience.

**Materials and Methods:** Data of patients with limited conversion to open was retrieved and analyzed from all patients undergoing IPOM from June 2012 to 2016. Cause for conversion, procedure performed, operative time, mesh size, complications, hospital stay and up to 1 year follow up for recurrence were studied.

**Results:** In 486 patients of incisional hernia, a partial/ limited conversion was performed in 37 patients. The reason for conversion was, lower abdominal scar with localized rectii divarication - 18 patients, thin redundant skin and sac -10 patients and complex adhesions - 9 patients. In 34 patients an open approximation of defect edges was done through a 6 to 8 cm incision, followed by laparoscopic IPOM repair with a mesh sized to the original defect. In 2 patients due to an inadvertent enterotomy and 1 patient with erosion of mesh into bowel an immediate anatomical repair was followed by laparoscopic IPOM 6 to 12 weeks later. Mean operative time was 126 + 35 mins. Mesh size varied between 20 x 20 cm<sup>2</sup> to 20 x 30 cm<sup>2</sup>, hospital stay averaged 5 + 2.9 days. There were no recurrences in the one year followup period.

**Conclusion:** Hybrid laparoscopic IPOM repair in complex hernias is feasible, safe and has better cosmesis.

AS11-6

## Therapeutic effect of hybrid technique for incarcerated or strangulated incisional hernia repair

Wen Luo, Yong Wang

*Department of Hernia and Abdominal Wall Surgery, The Central Hospital of Wuhan, Tongji Medical College of Huazhong University of Science and Technology, China*

---

**Objective:** To investigate the safety and effectiveness of a hybrid technique for incarcerated or strangulated incisional hernia repair.

**Methods:** The clinical and follow-up data of 11 cases of hybrid technique for incarcerated or strangulated incisional hernia repair performed from January 2011 to January 2015 at the WuHan central Hospital of University were analyzed retrospectively.

**Results:** All cases were performed by hybrid technique successfully with a mean operation time of (151.9±65.2) min and a mean time of postoperative hospital stay of (11.7±3.6) days (7-14 days).All patients were followed up for (21.4±12.1) months (12-36months).There was neither obvious seroma nor recurrence nor bulging.

**Conclusion:** The hybrid technique is safe and effective for incarcerated incisional hernia repair with less complication.

AS11-7

## Laparoscopic Ventral hernia mesh repair Hybrid technique: Our experience

Dr Sathish N

*Dept of Surgery, Columbia Asia Referral Hospital -Bangalore, India*

---

**Abstract Content:** Ventral hernias continue to be one of the common cases seen by general surgeons in their out patients. Management of these hernias has evolved over time with no one 'gold standard' procedure that can address all concerns, till date. Hybrid technique is one technique which is slowly gaining acceptance.

**Objective:** A Retrospective comparative study, to see if hybrid technique is an acceptable alternative to a complete laparoscopic ventral hernia mesh repair in our setup.

**Method:** 20 cases of primary laparoscopic ventral hernia were compared with 20 cases of ventral hernia operated by hybrid technique. All patients were followed up for one-year post operatively & were compared in terms of post-operative pain (visual analogue scale), duration of analgesic requirement & hospitalization, resumption of regular activities and early recurrence.

**Conclusion:** Hybrid technique matches with total laparoscopic ventral hernia repair on all parameters and appears to be an acceptable alternative in our set-up though long term studies are required before completely replacing it.

AS12-1

## The role of laparoscopic repair in incarcerated and strangulated groin hernias

George P Yang

*Department of Surgery, Adventist Hospital, Hong Kong*

---

Laparoscopic surgical management for emergency surgical condition has become more popular in recent decades. This is due to the better understanding of laparoscopic abdominal anatomy, better laparoscopic surgical skill training, the much improved laparoscopic instruments, and better anaesthesiology.

Patient with emergency surgical conditions present as a spectrum. This also applies to incarcerated or strangulated hernia patients. Emergency laparoscopic hernia surgery has been performed in many specialized centers. A retrospective comparative analysis has been performed to evaluate open versus laparoscopic management for acute incarcerated or strangulated groin hernias. Result showed lower wound infection rates, lower laparotomy rate, and shorter mean hospital stay for laparoscopic group.

Emergency laparoscopic hernia repair for strangulated groin hernia is feasible in specialized center. Initial analysis showed improved patient outcome over open repair group. A proper designed randomized controlled study should be carried out in specialized center.

AS12-2

## The use of prosthetic mesh in the emergency management of the acute incarcerated inguinal hernias: a retrospective study of 167 patients

Jing Liu

*Department of Hernia and Abdominal Wall Surgery, Beijing Chao-Yang Hospital, Capital Medical University, China*

---

**Introduction:** Tension-free hernia repair has been regarded as a gold standard treatment for selected inguinal hernias, but the use of prosthetic mesh in incarcerated inguinal hernias is controversial. We performed our study to evaluate the safety of prosthetic mesh repair for emergency cases.

**Methods:** Patients with acute incarcerated inguinal hernias who underwent emergency prosthetic mesh repair during 2010 to 2015 at our department were included. Patient characters, operative approaches, results and complications were retrospectively analyzed.

**Results:** A total of 167 patients were included in our study. 122 patients underwent open surgery while the remained 45 patients underwent laparoscopic TAPP. There were 153 males and 14 females, the median age was  $54 \pm 17$  years. The hernia was indirect in 133 patients (79.6%), direct in 15 patients (9.0%) and femoral in 19 patients (11.4%). Non-viable intestinal resection was performed in 14 patients (8.4%), only 2 of which underwent wound infection. Another 3 patients who developed wound infection had viable hernia content. There was no mesh-related infection. Other complications included scrotal seroma/hematoma in 25 patients (15.0%), pulmonary infection in 10 patients (6.0%), and deep vein thrombosis in 2 patients (1.2%). There were 2 perioperative mortalities. During the median follow-up of  $34 \pm 19$  months (range from 6-77months), 2 recurrences were recorded in our study.

**Conclusion:** The use of prosthetic mesh in the treatment of acute incarcerated inguinal hernia is safe. Non-viable intestinal resection cannot be regarded as a contradiction of the mesh repair.