

RESULTS OF LAPAROSCOPIC INTRAPERITONEAL ONLAY MESH REPAIR (IPOM) WITH INTRAPERITONEAL SUTURING OF HERNIA SAC BY BARBED SUTURES FOR INCISIONAL VENTRAL HERNIA

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INTRODUCTION: *Laparoscopic intraperitoneal onlay mesh repair (IPOM) is currently the preferred technique for treatment of ventral hernia. It offers advantages such as reduced hospital stay, diminished pain, low recurrence rate and in addition to aesthetic benefits. One of the common complications after laparoscopic IPOM is seroma formation that bothersome to patients and might require drainage. Laparoscopic IPOM repair with intraperitoneal suturing of hernia sac by barbed sutures might help to reduce this complication and maintain optimal outcomes for the patients.*

Patient Demographics

Number of Patients	Age	Comorbidities
35 patients, 25 females and 10 males.	Mean age 52 years, range 35–83.	8 patients had comorbidities.

Surgical Details

1. **Previous Operations** — 32 patients had one previous operation, 1 had 3, and 2 had 4.
2. **Hernia Location** — 24 midline, 8 iliac fossa, 3 flank.
3. **Hernia Size** — Average size 5cm, range 4–12cm.
4. **Operating Time** — Mean time 100 minutes, range 60–130.

Surgical Outcomes

Conversion — No conversion to open surgery required.

Hospital Stay — Median stay 3 days.

Pain Score — Mean VAS score 3.6 at postoperative day 1.

Complications

Seroma — One case (2.8%) of right flank hernia, no drainage required.

Intestinal Obstruction — One case (2.8%) of suprapubic midline hernia, reoperation required.

RESULTS: *Over a 4-year period from June 2020 to June 2024, thirty five patients with incisional ventral hernia was included into study, comprising 25 females and 10 males. The mean age was 52 years (range 35-83), with 8 patients had comorbidities. Thirty two patients had one previous operation, one patient had 3 and two patients had 4. There were 24 cases with midline ventral hernia, 8 cases with iliac fossa hernia and 3 cases with flank hernia. The average hernia size was 5cm (4 - 12 cm). Mean operating time was 100 minutes (60 – 130). No conversion to open surgery required. The median hospital stay were 3 days with mean VAS score of 3.6 at postoperative day 1. Postoperative seroma occurred in one case (2.8%) of right flank hernia that required no further drainage. Intestinal obstruction happened in one case (2.8%) of suprapubis midline hernia in postoperative day 7 that required reoperation. No recurrence was noted with the mean follow-up of 12 months (3 – 48 months).*

Laparoscopic IPOM Repair with Intraperitoneal Suturing

Safety and Feasibility
The technique is proven safe and effective

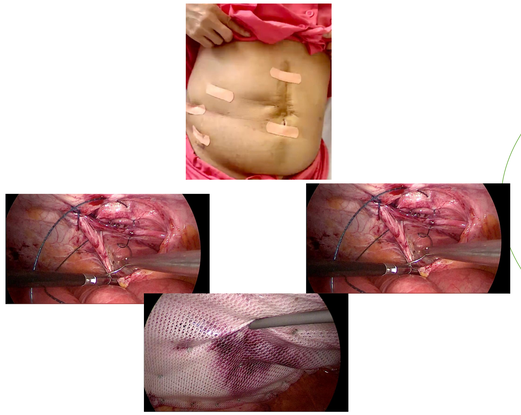
Reduced Seroma Risk
Potential for decreased seroma formation

Technical Advantages

1. ***Minimally Invasive*** — Reduced trauma and pain for the patient
2. ***Enhanced Fixation*** — Barbed sutures provide secure tissue fixation
3. ***Improved Cosmetic Outcomes*** — Minimally invasive techniques lead to smaller incisions

Future Directions

1. ***Further Research*** — More randomized controlled trials are needed
2. ***Comparative Analysis*** — Comparison with other laparoscopic techniques
3. ***Long-Term Outcomes*** — Evaluating long-term efficacy and recurrence rates



METHODS: *A retrospective analysis of laparoscopic IPOM repair with intraperitoneal suturing of hernia sac by 1.0 barbed sutures (Strastafix or V-loc sutures) for incisional ventral hernia was conducted at the Digestive Surgery Department of Cho Ray Hospital, Vietnam. All patients underwent surgery utilizing Parietex™ Optimized Composite mesh, fixing with transfascial suturing and Protack.*

Recurrence and Follow-Up

1. No recurrence noted.
2. Mean follow-up of 12 months.
3. Range of 3–48 months.

Key Findings

1. **High Success Rate** — No conversion to open surgery, minimal complications.
2. **Short Recovery Time** — Median hospital stay of 3 days, low pain scores.
3. **Long-Term Stability** — No recurrence observed during the follow-up period.

Next Steps

Further Research — Expand the study to include a larger sample size.

Clinical Applications — Implement the findings in clinical practice to improve patient care.

Dissemination — Share the results with the medical community through publications and conferences.

CONCLUSION:

Laparoscopic IPOM repair with intraperitoneal suturing of hernia sac by barbed sutures is a safe, feasible and effective technique for the treatment of incisional ventral hernia. It might help to reduce to rate of seroma formation. More randomized controlled trials might be needed to evaluate the role of this technique