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# Clinical Safety and One-Year Outcomes of MERIGROW™ Polypropylene Mesh in Elective Hernia Repair

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## ABSTRACT

**Background:** Real-world evidence can complement controlled studies when evaluating mesh performance across hernia types and surgical approaches. This study assessed MERIGROW™ polypropylene mesh in elective hernia repair.
**Methods:** This two-centre retrospective study included 329 adults undergoing MERIGROW™ mesh repair. Primary endpoints included recurrence, surgical site infection, pain, reoperation, and surgical site occurrences; secondary endpoints included AEs, SAEs, device-related complications, readmission, operative outcomes, and hospital stay. Follow-up was recorded at 1, 3, 6, and 12 months.
**Results:** Inguinal hernia was most common (72.04%). Mean operative time was 35.16 ± 8.46 minutes, with no intraoperative AEs. By discharge, 4 patients (1.22%) experienced 5 AEs: surgical site infection (n=1), seroma (n=2), haematoma (n=1), and mild abdominal discomfort (n=1); no SAE occurred. During the first post-discharge month, 8 patients (2.43%) experienced 11 AEs; 3 patients had multiple events. Surgical site infection, seroma, and haematoma occurred in 3 (0.91%), 6 (1.82%), and 2 (0.61%) patients, respectively. No further AEs in these categories or SAEs were recorded. One recurrence (0.30%) was first recorded at 6 months, with no additional recurrence through 12 months.
**Conclusion:** MERIGROW™ mesh showed a favourable early safety profile, with infrequent non-serious postoperative events and cumulative recurrence of 0.30% at 12 months. Longer follow-up is needed to establish durability.

***Keywords****: Hernia repair; polypropylene mesh; real-world evidence; postoperative outcomes.*

## INTRODUCTION

Hernia repair is one of the most common surgical procedures in general surgery, with more than 20 million groin hernias repaired worldwide every year.[1] In addition to groin hernias, there are many other abdominal wall hernias. A meta-analysis, which was included in the guidelines of the European Hernia Society (EHS), found an incidence of 12.8% for incisional hernias two years after a midline abdominal incision.[2]

A number of anatomical, patient related and lifestyle factors have been described in association with external hernias and the development of hernia. For example, increasing age, sex, chronic constipation, chronic cough, smoking, and strenuous physical activity have all been associated with external hernias. Previous abdominal surgery and a family history of hernia have also been noted in association with external hernias.[3] While many hernias present as a reducible swelling or localized area of discomfort, untreatated hernias can go on to incurerate, lead to an intestinal obstruction or suffer a strangulation of the herniated bowel, which can require a surgery to be performed on an urgent basis.[3]

Surgical repair of hernias is performed using open surgery or by a minimally invasive (keyhole) approach and is determined by a number of factors, including the site and type of hernia, the patient's general health and past surgical history, and the

surgeon's personal preference and experience. In particular, for inguinal hernias, the keyhole (laparoscopic) approach has the advantage of causing less chronic postoperative groin pain than open repair of hernias. However, there is no clear evidence that keyhole methods reduce the rate of hernia recurrence when compared with open repair.[4] An overview of 21 systematic reviews of randomised trials of surgical methods for repair of abdominal wall hernias found that there was a reduction of 26–46% in risk or odds of chronic pain with the use of laparoscopic repair compared with open repair.[4]

Surgical management of hernias involves the use of mesh for reinforcement of fascial defects. The majority of randomized controlled trials have shown that the use of mesh for hernia repair results in a reduction in recurrence compared to non-mesh techniques for both inguinal and femoral hernias. However, major postoperative complications are not significantly decreased with the use of mesh for hernia repair.[5] In determining the outcome of a hernia repair, consideration must also be given to the development of postoperative pain, surgical site infection, seroma formation, wound complications, device-related complications and the need for further surgical intervention for recurrence or complications in the longer term. Polypropylene is still the most commonly used synthetic material for permanent hernia repair. There are significant differences between various types of meshes as well as between the different surgical techniques. So, evaluation of individual mesh products in clinical settings is important. In a recent registry study of 22,141 patients who underwent Lichtenstein hernia repairs with polypropylene mesh, there was no significant association between the pore size of the mesh and the rate of one-year recurrences or pain that required treatment after adjustment for relevant patient and surgical factors.[6]

MERIGROW™ Mesh (Meril Endo Surgery Pvt. Ltd.) is a sterile, non-absorbable, knitted monofilament polypropylene mesh intended for hernia repair and for fascial defect repair. MERIGROW™ Mesh is a macroporous, permanent mesh that allows for tissue ingrowth. The MERIGROW™ Mesh is a 'cut to size' product that can be used in both open and laparoscopic surgery. As with any permanent implant, the performance of MERIGROW™ Mesh needs to be evaluated in clinical practice with respect to safety and clinical outcome during the first postoperative year.

In this retrospective study we analyze the data of 329 patients with 329 hernia repairs using the MERIGROW™ Mesh, performed by two surgeons in two centers. The aim of the study is to present how the MERIGROW™ Mesh is used in daily clinical practice, and to analyze the safety and the clinical results in the first postoperative year.

## MATERIALS AND METHODS

### Study design and participants

This retrospective observational study included patients who underwent hernia repair using MERIGROW™ non-absorbable polypropylene mesh at two centres. A total of 329 patients with index procedures performed between 6 January 2023 and 13 July 2025 were included. All information was obtained from records generated during routine clinical care, and treatment decisions were made independently of the study.

Adults aged 18 years or older who had received MERIGROW™ mesh were eligible for inclusion. Patients were excluded when the index procedure involved a complex hernia requiring reconstruction, when a recurrent hernia was present before the index operation, when active infection could interfere with wound healing, or when the available records were insufficient for assessment. The analysed cohort included inguinal, epigastric, umbilical, and incisional hernia repairs. The study cohort and follow-up pathway are summarized in Figure 1.

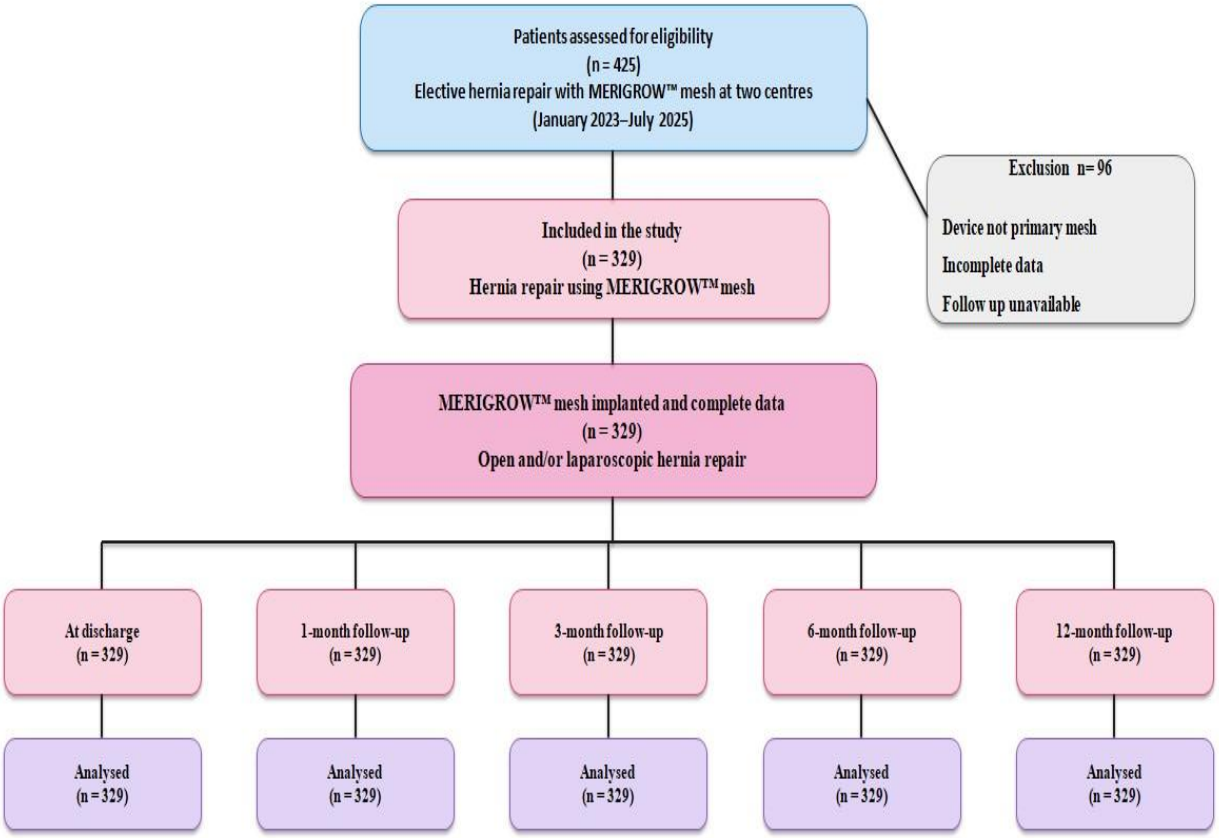


Figure 1. Study cohort and follow-up flow.

**Device and operative data**

MERIGROW™ (Meril Endo Surgery Pvt. Ltd.) is a sterile, non-absorbable, knitted monofilament polypropylene mesh intended to reinforce tissue during repair of hernias and fascial defects. Operative approach and technique, including the decision to perform open or laparoscopic repair, were determined by the treating surgeon as part of routine practice. Data extracted from the index procedure included hernia type and dimensions, operative approach, type of anaesthesia, mesh size, fixation method, operative duration, and any intraoperative events documented in the record.

**Study Endpoints and follow-up**

The primary outcomes of interest were hernia recurrence, surgical site infection, postoperative pain, reoperation, and surgical site occurrences such as seroma, haematoma, wound cellulitis, dehiscence, and fistula. Secondary outcomes included adverse and serious adverse events, device-related complications, operative and mesh-fixation times, readmission, postoperative complication severity assessement, and length of hospital stay. Pain was documented on a 0-10 scale for the midline, flank, and hypogastric regions. Surgical site infection and other surgical site occurrences were evaluated at the specified early follow-up visits.

Baseline, operative, and discharge information was obtained from the available clinical records. Follow-up data were collected from records at 1, 3, 6, and 12 months. Outcomes recorded during follow-up included surgical site events, device-related events, recurrence, reoperation, readmission, and postoperative pain.

**Surgical procedure and mesh placement**

All procedures were performed according to the operating surgeon's routine institutional practice. The choice of open or laparoscopic repair was based on the clinical characteristics of the hernia and the surgeon's preferred approach. In open repairs, the operative field was exposed through the standard approach, and the mesh was positioned to provide adequate coverage of the hernia defect and surrounding area. In laparoscopic repairs, the preperitoneal space was dissected and the mesh was introduced and positioned to provide adequate coverage of the myopectineal region. Mesh positioning and fixation, when required, were performed according to the surgical technique and surgeon preference. Before completion of

the procedure, the operative field and final mesh position were assessed to ensure satisfactory placement. Representative intraoperative appearances of mesh placement during laparoscopic and open repair are shown in Figure 2.

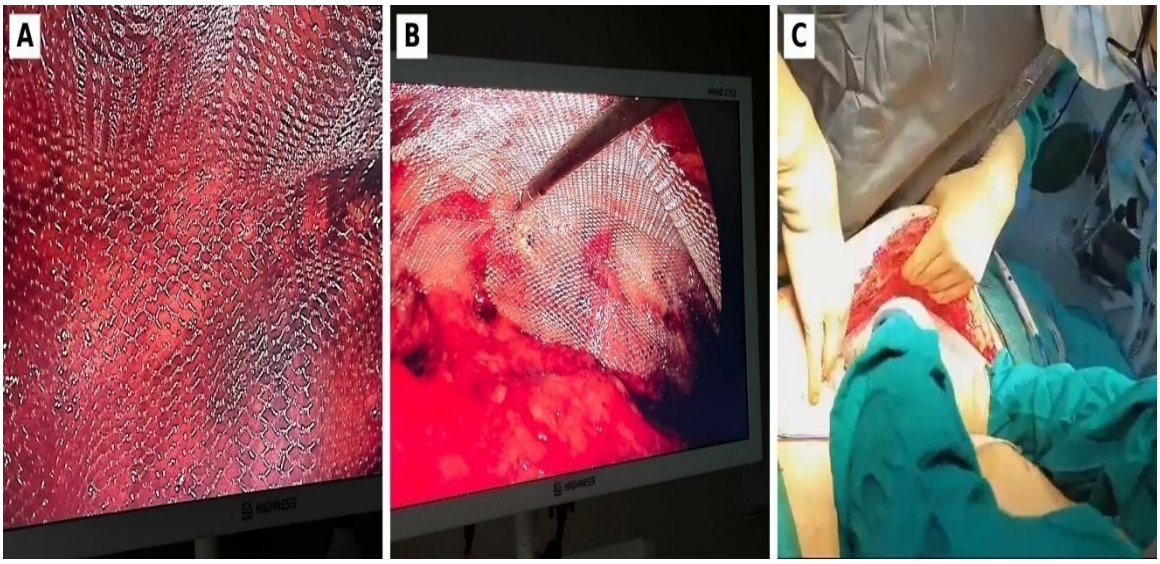


**Figure 2. Representative intraoperative images of mesh placement during elective inguinal hernia repair.** (A) Magnified intraoperative view demonstrating mesh deployment and apposition to the operative field. (B) Laparoscopic view demonstrating positioning of the mesh within the dissected preperitoneal space. (C) Open surgical view demonstrating mesh placement and its relationship with the surrounding tissues.

**Sample size and statistical analysis**

The planned sample size was 301 patients. This calculation assumed a surgical site occurrence rate of 17.9% and a two-sided 95% confidence interval with an approximate half-width of 4.48 percentage points using the Wilson method.[7] The final available cohort comprised 329 patients and therefore exceeded the prespecified target.

Categorical data are presented as counts and percentages. Continuous variables are summarized using mean ± standard deviation or median with interquartile range, according to the distribution of the data. For each outcome, the denominator was the number of patients with data available at that assessment. Analyses were descriptive; the study was not designed to test comparative effectiveness.

**Ethical considerations**

The requirement for written informed consent was waived due to the retrospective nature of the study and the use of existing clinical data. Patient records were handled using coded identifiers, and no directly identifiable information was included in the analysis or reporting. Ethical committee approval were obtained prior to the study.

## RESULTS

**Baseline characteristics**

The cohort comprised 329 patients with a mean age of 53.98 ± 13.37 years. Of these, 307 (93.31%) were men and 22 (6.69%) were women. Mean height was 159.27 ± 5.69 cm, mean weight 65.74 ± 6.29 kg, and mean body mass index 25.97 ± 2.68 kg/m². Further demographic characteristics and baseline vital signs are shown in Table 1.

**Table 1; Baseline demographic characteristics and vital signs**

| **Demographic** | |
|---|---|
| **Gender** | **n(%)** |
| Male | 307 (93.31) |
| Female | 22 (6.69) |
| **Age, years, Mean±SD** | **53.98±13.37** |
| **Age bifurcation** | **n(%)** |
| 34–47 | 133 (40.43) |
| 48–61 | 101 (30.70) |
| 62–75 | 68 (20.67) |
| 76–89 | 27 (8.21) |
| **Vital signs** | **Mean±SD** |
| Height (cm) | 159.27 ± 5.69 |

| | |
|---|---|
| Weight (Kg) | 65.74 ± 6.29 |
| Body Mass Index,(Kg/m$^2$) | 25.97± 2.68 |
| Heartrate,bpm | 77.06 ± 8.54 |
| Systolic blood pressure,mmHg | 122.88± 8.33 |
| Diastolic blood pressure,mmHg | 83.28± 4.13 |

**Note:** BMI: body mass index; bpm: beats per minute; DBP: diastolic blood pressure; kg: kilogram; m²: square metre; mmHg : millimetres of mercury; SBP : systolic blood pressure; SD: standard deviation.

Hypertension was documented in 31 patients (9.42%) and diabetes mellitus in 17 (5.17%). Previous mesh implantation was recorded in 62 patients (18.84%). Before surgery, pain scores in the midline, flank, and hypogastric regions ranged from 5 to 8. Additional medical and surgical history, examination findings, and the distribution of baseline pain scores are provided in Supplementary Table 1.

**Hernia and operative characteristics**

Most procedures were performed for inguinal hernia (237/329, 72.04%). Epigastric hernia accounted for 48 cases (14.59%), umbilical hernia for 34 (10.33%), and incisional hernia for 10 (3.04%). Mean hernia length was 2.30 ± 0.85 cm and mean width was 2.33 ± 0.85 cm.Open repair was used in 199 patients (60.49%), while 130 (39.51%) underwent laparoscopic repair. Mesh fixation was most often performed with sutures (293 procedures, 89.06%); tack fixation was used in 36 (10.94%). A 10 × 15 cm mesh was the most commonly selected size, used in 185 procedures (56.23%). Mean operative time was 35.16 ± 8.46 minutes and mean mesh-fixation time was 7.56 ± 1.57 minutes. No intraoperative adverse events were documented (Table 2).

**Table 2 Hernia characteristics and index operative details**

| **Index Procedure** | **n(%)** |
|---|---|
| **Operative Time (skin incision to completion of skin closure) (Min)** | 35.16 ± 8.46 |
| **Type of surgery** | n(%) |
| Laparoscopic Surgery | 130 (39.51) |
| Open surgery | 199 (60.49) |
| **Fixation Device Used** | n(%) |
| Suture Fixation | 293 (89.06) |
| Tack Fixation | 36 (10.94) |
| **Type of hernia** | n(%) |
| Epigastric hernia | 48 (14.59) |
| Inguinal Hernia | 237 (72.04) |
| Incisional hernia | 10 (3.04) |
| Umbilical hernia | 34 (10.33) |
| **Hernia Length(cm)** | 2.30 ± 0.85 |
| **Hernia Diameter/Width (cm)** | 2.33 ± 0.85 |
| **Mesh Technique** | n(%) |
| Inlay | 210 (63.8) |
| Overlay | 119 ( 36.2) |
| **Mesh Sizes** | n(%) |
| 6x11 | 14 (4.26) |
| 7.6x15 | 37 (11.25) |
| 10x15 | 185 (56.23) |
| 12x15 | 37 (11.25) |
| 12x18 | 28 (8.51) |
| 15x15 | 25 (7.60) |
| 15X20 | 3 (0.91) |
| **Mesh Fixation Time (Min)** | 7.56 ± 1.57 |
| **Adverse Event** | 0 |

**Outcomes at discharge**

All 329 patients were discharged, with a mean hospital stay of 2.50 ± 0.72 days. Through discharge, four patients (1.22%) experienced at least one AE, accounting for five individual AE events; one patient experienced two events. The recorded events comprised surgical site infection in 1 patient (0.30%), seroma in 2 (0.61%), haematoma in 1 (0.30%), and mild abdominal discomfort in 1 (0.30%). No SAE, device-related complication, reoperation, or death was documented before discharge. At discharge, 304 patients (92.40%) had a midline pain score of zero and 268 (81.46%) had a flank score of

zero. Hypogastric discomfort was more frequent: 107 patients (32.52%) recorded a score of zero and 205 (62.31%) a score of 1. Table 3 provides the complete discharge outcomes and regional pain-score distribution.

**Table 3. Hospital discharge outcomes and regional pain scores**

| Discharge Details | n (%) |
|---|---|
| Discharged Subjects | 329 |
| Length of Hospital Stay, Days, Mean ± SD | 2.50 ± 0.72 |
| Device-related complication | 0 |
| Visual Analog Scale | n (%) |
| **Midline** | |
| 0 | 304 (92.40) |
| 1 | 20 (6.08) |
| 2 | 4 (1.22) |
| 5 | 1 (0.30) |
| **Flank** | |
| 0 | 268 (81.46) |
| 1 | 54 (16.41) |
| 2 | 6 (1.82) |
| 3 | 1 (0.30) |
| **Hypogastric Region** | |
| 0 | 107 (32.52) |
| 1 | 205 (62.31) |
| 2 | 14 (4.26) |
| 3 | 2 (0.68) |
| 6 | 1 (0.30) |
| Patients with ≥1 adverse event, n (%) | 4 (1.22) |
| Total individual AE events, n | 5 |
| Surgical site infection, n (%) | 1 (0.30) |
| Seroma, n (%) | 2 (0.61) |
| Haematoma, n (%) | 1 (0.30) |
| Wound dehiscence, n (%) | 0 (0.00) |
| Mild abdominal discomfort, n (%) | 1 (0.30) |
| Patients with ≥1 serious adverse event (SAE), n (%) | 0 (0.00) |
| Device-related complication, n (%) | 0 (0.00) |
| Mesh infection, n (%) | 0 (0.00) |
| Mesh migration, n (%) | 0 (0.00) |
| Mesh failure, n (%) | 0 (0.00) |
| Reoperation before discharge, n (%) | 0 (0.00) |
| Death, n (%) | 0 (0.00) |

**Follow-up through one year**

Follow-up was documented for all 329 patients at 1, 3, 6, and 12 months. During the first post-discharge month, eight patients (2.43%) experienced at least one AE, accounting for 11 individual AE events; three patients experienced more than one event. These events comprised surgical site infection in 3 patients (0.91%), seroma in 6 (1.82%), and haematoma in 2 (0.61%); no wound dehiscence was recorded. No additional AEs in these categories and no SAEs were recorded at the 3-, 6-, or 12-month assessments. No mesh infection, mesh migration, or mesh failure was recorded during follow-up. One hernia recurrence (0.30%) was first recorded at 6 months and remained represented in the cumulative 12-month assessment. No reoperation or readmission was documented (Table 4).

**Table 4. Follow-up outcomes and postoperative events from 1 month to 1 year**

| Outcome | 1 month, n (%) | 3 months, n (%) | 6 months, n (%) | 12 months, n (%) |
|---|---|---|---|---|
| Follow-up completed | 329 (100) | 329 (100) | 329 (100) | 329 (100) |
| **Safety outcomes** | | | | |
| Patients with ≥1 adverse event (AE) | 8 (2.43) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| Total individual AE events, n | 11 (3.34) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| Patients with ≥1 serious adverse event (SAE) | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) |

| | | | | |
|---|---|---|---|---|
| **Surgical site events** | | | | |
| Surgical site infection | 3 (0.91) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| Seroma | 6 (1.82) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| Haematoma | 2 (0.61) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| Wound dehiscence | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| **Device-related events** | | | | |
| Mesh infection | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| Mesh migration | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| Mesh failure | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| **Clinical outcomes** | | | | |
| Hernia recurrence (cumulative), n (%) | 0 (0.00) | 0 (0.00) | 1 (0.30) | 1 (0.30) |
| Reoperation | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) |
| Readmission | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) |

Note: Post-discharge AE counts are interval-specific and represent events recorded during each follow-up interval; recurrence is cumulative from first documentation. A patient may contribute more than one individual AE event. AE, adverse event; SAE, serious adverse event.

## DISCUSSION

This retrospective study describes the clinical experience with MERIGROW™ mesh in 329 patients undergoing routine hernia repair. No intraoperative AEs were documented. Through discharge, four patients (1.22%) experienced at least one AE, accounting for five individual events, with one patient experiencing two events; no SAE occurred. During the first post-discharge month, eight patients (2.43%) experienced at least one AE, accounting for 11 individual events, and three patients experienced more than one event. The individual 1-month events were surgical site infection in 3 patients (0.91%), seroma in 6 (1.82%), and haematoma in 2 (0.61%), with no wound dehiscence. No further AEs in these categories or SAEs were recorded at later follow-up assessments. No mesh infection, migration, or failure, reoperation, or readmission was documented. One hernia recurrence (0.30%) was recorded by 6 months and remained represented at 12 months. The cohort included both open and laparoscopic procedures, although inguinal hernia repair accounted for most cases.

The one-year results are best interpreted in the context of studies with a similar duration of follow-up. Chowbey et al. evaluated 402 patients undergoing totally extraperitoneal repair of bilateral groin hernias with lightweight or heavyweight polypropylene mesh. At one year, recurrence was reported in 1.3% and 0.2% of patients, respectively, while chronic groin pain occurred in 1.6% and 4.7%; neither difference was statistically significant.8 In the TULP trial of 950 patients undergoing totally extraperitoneal inguinal repair, clinically relevant pain (NRS 4–10) at one year occurred in 2.9% of the lightweight-mesh group compared with 0.7% of the heavyweight-mesh group (P=0.01). At two years, recurrence was also more frequent with lightweight mesh (13 [2.7%] vs 4 [0.8%], P=0.03).9 In our cohort, one recurrence (0.30%) was recorded during the first year. Direct comparison should be avoided because the studies differed in patient populations, operative procedures, mesh characteristics, and methods of outcome assessment.

Early postoperative events were infrequent and were predominantly non-serious. Through discharge, four patients (1.22%) had at least one AE and no SAE was documented. During the first post-discharge month, eight patients (2.43%) had at least one AE; because three patients experienced more than one event, the 11 individual events exceeded the number of affected patients. At 1 month, surgical site infection occurred in 0.91% of patients, seroma in 1.82%, and haematoma in 0.61%, with no wound dehiscence. No additional events in these categories or SAEs were recorded at later assessments. Kaufmann et al., in a multicentre trial of mesh repair for small primary umbilical hernias, reported seroma in 3%, haematoma in 2%, and wound infection in 2% of patients. Although the rates observed in the present cohort were numerically lower, differences in hernia type, operative approach, patient characteristics, and follow-up methods prevent direct comparison.

Recurrence was uncommon during the first postoperative year, with one case (0.30%) recorded by 6 months and still represented in the 12-month cumulative assessment. This finding is consistent with a low early recurrence burden but should be interpreted cautiously because a one-year observation period cannot establish long-term anatomical durability. The absence of mesh infection, migration, or failure and the absence of reoperation or readmission during follow-up further support a favourable early device and postoperative profile in the available records.

A one-year observation period provides limited information about long-term durability. In the umbilical hernia trial reported by Kaufmann et al., recurrence after mesh repair was identified in 6 of 146 patients (4%) during follow-up extending to 30 months, with examination and ultrasound used when indicated.11 Recurrent inguinal hernias were likewise reported at the two-year assessment of the TULP trial.9 These findings underline why the current results should be regarded

as early clinical performance data. Continued follow-up will be needed to define longer-term recurrence and durability of repair with MERIGROW™ mesh.

**Strengths**

Several features strengthen this study. It includes 329 patients treated at two centres under routine clinical conditions rather than a narrowly selected trial population. The cohort covers inguinal, epigastric, umbilical, and incisional hernias and includes both open and laparoscopic repairs, giving a broader view of how the mesh was used in practice. Operative records provided details of the procedure, fixation, and early events, while regional pain scores allowed postoperative symptoms to be followed over time. Follow-up was documented for every patient at 1, 3, 6, and 12 months. Taken together, these data provide a consistent account of early clinical experience with MERIGROW™ mesh across the procedures represented in the cohort.

**Limitations**

The findings should be considered in light of several limitations. First, the retrospective, single-arm design does not allow comparison with another mesh or repair strategy and is dependent on the completeness of routinely recorded data. Second, although pain intensity was documented, validated patient-reported measures of functional recovery and quality of life were not available. In addition, one year is insufficient to characterize late recurrence.

## CONCLUSION

In this retrospective study, MERIGROW™ mesh demonstrated a favourable early safety profile in routine hernia repair. No intraoperative AEs occurred. Through discharge, four patients (1.22%) experienced five AEs, with no SAEs. During the first post-discharge month, eight patients (2.43%) experienced 11 AEs, including surgical site infection (0.91%), seroma (1.82%), and haematoma (0.61%); no subsequent AEs in these categories or SAEs were recorded. No mesh infection, migration or failure, reoperation, or readmission occurred during follow-up. One hernia recurrence (0.30%) was recorded by 6 months, with no additional recurrence through 12 months. These findings support the favourable early clinical performance of MERIGROW™ mesh, although longer follow-up is needed to establish long-term durability.

**Acknowledgements**

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**Conflict of Interest**

Vishal Sharma, Sheetal Parmar, and Kiran Kumar Shetty are employees of Meril, Vapi, India, the manufacturer of the medical device evaluated in this study. Their involvement was restricted to providing technical input regarding the device and editorial support during manuscript preparation. The authors declare no conflicts of interest related to this study.

**REFERENCE:**

1. Stabilini C, van Veenendaal N, Aasvang E, Agresta F, Aufenacker T, Berrevoet F, et al. Update of the international HerniaSurge guidelines for groin hernia management. *BJS Open.* 2023;7(5):zrad080. doi:10.1093/bjsopen/zrad080.
2. Sanders DL, Pawlak MM, Simons MP, Aufenacker T, Balla A, Berger C, et al. Midline incisional hernia guidelines: the European Hernia Society. *Br J Surg.* 2023;110(12):1732–1768. doi:10.1093/bjs/znad284.
3. Kibret AA, Tekle SY, H/Mariam MM, Worede AG, Dessie MA. Prevalence and associated factors of external hernia among adult patients visiting the surgical outpatient department at the University of Gondar Comprehensive Specialised Hospital, Northwest Ethiopia: a cross-sectional study. *BMJ Open.* 2022;12(4):e056488. doi:10.1136/bmjopen-2021-056488.
4. Haladu N, Alabi A, Brazzelli M, Imamura M, Ahmed I, Ramsay G, Scott NW. Open versus laparoscopic repair of inguinal hernia: an overview of systematic reviews of randomised controlled trials. *Surg Endosc.* 2022;36(7):4685–4700. doi:10.1007/s00464-022-09161-6.
5. Lockhart K, Dunn D, Teo S, Ng JY, Dhillon M, Teo E, van Driel ML. Mesh versus non-mesh for inguinal and femoral hernia repair. *Cochrane Database Syst Rev.* 2018;9(9):CD011517. doi:10.1002/14651858.CD011517.pub2.
6. Albrecht HC, Trawa M, Köckerling F, et al. Is mesh pore size in polypropylene meshes associated with the outcome in Lichtenstein inguinal hernia repair: a registry-based analysis of 22,141 patients. *Hernia.* 2024;28(4):1293–1307. doi:10.1007/s10029-024-03029-5.
7. Ellis RC, Maskal SM, Messer N, Miller BT, Petro CC, Prabhu AS, et al. Short-term outcomes of heavyweight versus mediumweight synthetic mesh in a retrospective cohort of clean-contaminated and contaminated retromuscular ventral hernia repairs. Surg Endosc. 2024 Jul;38(7):4006–13. doi:10.1007/s00464-024-10946-0.

8. Chowbey PK, Garg N, Sharma A, Khullar R, Soni V, Baijal M, Mittal T. Prospective randomized clinical trial comparing lightweight mesh and heavyweight polypropylene mesh in endoscopic totally extraperitoneal groin hernia repair. Surg Endosc. 2010 Dec;24(12):3073-9. doi: 10.1007/s00464-010-1092-0.
9. Burgmans JP, Voorbrood CE, Simmermacher RK, Schouten N, Smakman N, Clevers G, et.al. Long-term Results of a Randomized Double-blinded Prospective Trial of a Lightweight (Ultrapro) Versus a Heavyweight Mesh (Prolene) in Laparoscopic Total Extraperitoneal Inguinal Hernia Repair (TULP-trial). Ann Surg. 2016 May;263(5):862-6. doi: 10.1097/SLA.0000000000001579.
10. Melkemichel M, Bringman S, Nilsson H, Widhe B. Patient-reported chronic pain after open inguinal hernia repair with lightweight or heavyweight mesh: a prospective, patient-reported outcomes study. Br J Surg. 2020 Nov;107(12):1659-1666. doi: 10.1002/bjs.11755.
11. Kaufmann R, Halm JA, Eker HH, Klitsie PJ, Nieuwenhuizen J, van Geldere D, et.al. Mesh versus suture repair of umbilical hernia in adults: a randomised, double-blind, controlled, multicentre trial. Lancet. 2018 Mar 3;391(10123):860-869. doi: 10.1016/S0140-6736(18)30298-8.
12. van Veenendaal N, Poelman MM, van den Heuvel B, Dwars BJ, Schreurs WH, Stoot JHMB, Bonjer HJ. The PINCH-Phone: a new screenings method for recurrent incisional hernias. Surg Endosc. 2019 Sep;33(9):2794-2801. doi: 10.1007/s00464-018-6567-4