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Mesh-Preserving Repeat Transabdominal Preperitoneal (Re-TAPP) Repair for Recurrent Direct Inguinal Hernia: A Case Report

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Abstract

Recurrent inguinal hernia after posterior mesh repair is generally managed through an anterior approach to avoid re-entering a previously operated preperitoneal plane. We report an unanticipated repeat transabdominal preperitoneal (re-TAPP) repair in a 76-year-old man with a symptomatic recurrent right direct inguinal hernia and end-stage kidney disease requiring hemodialysis. The patient reported a previous bilateral open repair, prompting the selection of laparoscopy. Intraoperatively, a prior prosthesis and a peritoneal scar indicating a previous posterior repair were identified; the previous operating surgeon subsequently confirmed that the earlier inguinal repair had been TAPP. The recurrent defect appeared to lie beyond the effective coverage of the original mesh, suggesting, but not proving, insufficient prior mesh coverage as a possible mechanism of recurrence. A new peritoneal flap was developed above the prior scar, and the incorporated old prosthesis was preserved to avoid compromising peritoneal coverage. Safe preperitoneal dissection was feasible, allowing the team to continue laparoscopically after considering an anterior approach. The medial, central, and lateral preperitoneal dissection zones were developed, followed by inversion and sutured approximation of tissue consistent with a redundant transversalis fascia pseudosac. A new mesh, adapted inferiorly to accommodate cord structures, with the cut edges separately secured, was placed, and the prosthesis-bearing peritoneal flap was closed over it. Surgery was completed without a reported intraoperative complication. At one month, the patient had satisfactory wound healing, no clinical recurrence or seroma, and no groin pain, although intermittent right inguinal tingling that began several days after surgery persisted. The case illustrates the interaction between preoperative approach selection and intraoperative decision-making when clinical history and surgical anatomy are discordant. Because this is a single case with only one-month follow-up, these findings describe short-term outcomes only; long-term repair durability and the risk of re-recurrence remain unestablished.

Categories: General Surgery, Geriatrics, Anatomy
Keywords: direct hernia, intraoperative decision-making, previous mesh preservation, pseudosac plication, recurrent inguinal hernia, transabdominal preperitoneal repair, transversalis fascia

Introduction

Inguinal hernia recurrence remains a technically important problem despite the widespread adoption of mesh-based repair. Reoperation requires attention to the original surgical plane, the condition and position of any existing prosthesis, and coverage of the entire myopectineal orifice. International HerniaSurge guidance recommends a posterior laparoendoscopic approach after failed anterior repair and, conversely, an anterior repair after failure of a previous posterior operation, thereby avoiding the previously dissected plane [1,2].

Performing transabdominal preperitoneal (TAPP) again after a previous laparoscopic posterior mesh repair is not the usual guideline-preferred strategy and may be considered only in selected circumstances. Small specialized series have demonstrated feasibility but have also reported risks of conversion, complications, and re-recurrence [3,4]. More recent comparisons offer differing perspectives: a large specialized-center re-TAPP cohort reported encouraging outcomes, whereas a comparative repeat totally extraperitoneal series favored changing to an anterior repair [5,6]. These data are difficult to generalize because patient selection, previous repair types, technical complexity, and surgical experience differ.

Anatomically, a direct inguinal hernia protrudes medial to the inferior epigastric vessels within Hesselbach's triangle, making adequate medial preperitoneal exposure and prosthetic coverage particularly important. Anatomically standardized preperitoneal dissection, including the three-zone description by Furtado and colleagues, helps surgeons expose critical structures and define adequate mesh coverage [7]. International

endoscopic recommendations also emphasize protecting the peritoneum and minimizing hazardous dissection around a previously incorporated prosthesis [8]. Additional reduction or inversion of redundant transversalis fascia in direct hernias has been described to address the residual defect cavity before definitive mesh placement [9].

We present a case of recurrent right direct inguinal hernia in which laparoscopy was planned on the basis of a reported prior open repair, but an incorporated posterior prosthesis was unexpectedly encountered during exploration. This discovery required an immediate reassessment of the operative strategy, including whether to adopt the generally recommended anterior approach after a prior posterior repair or proceed with repeat posterior dissection if a safe plane could be established. The report examines insufficient effective coverage by the original mesh as a possible but unproven mechanism of recurrence and describes preservation of the existing mesh, incorporation of the preserved prosthesis within the new peritoneal flap, repeat dissection of the myopectineal orifice, and adjunctive sutured closure of the direct defect.

Case Presentation

A 76-year-old man was admitted for elective surgical management of a symptomatic recurrent right inguinal hernia. His medical history included long-standing type 2 diabetes mellitus, arterial hypertension, chronic venous insufficiency, and end-stage kidney disease treated with maintenance hemodialysis three times weekly. Previous procedures included an open appendectomy, peritoneal dialysis catheter placement and removal, and bilateral inguinal hernia repair approximately four years previously. During direct preoperative questioning, he specifically described the prior bilateral groin repair as an open, tension-free operation. The surgeon who performed the earlier inguinal repair subsequently confirmed that it had been performed using the TAPP approach. The original operative report and implant specifications remained unavailable.

A right inguinal hernia had already been documented on abdominal computed tomography approximately 19 months before the index reoperation (Figure *1*). The patient reported first noticing a right inguinal bulge about 10 months before admission. It was initially asymptomatic, but approximately three months before admission, he began experiencing pain provoked by physical exertion or prolonged walking. He related his recognition of the bulge to a period after peritoneal dialysis catheter removal, although the available documents do not establish the exact temporal relationship. The difference between the earlier imaging diagnosis and the later patient-reported onset was interpreted as delayed recognition of a pre-existing recurrence rather than evidence of a new event.



FIGURE 1: Axial computed tomography showing the pre-existing right groin defect

Axial pelvic computed tomography obtained approximately 19 months before reoperation. The blue arrow identifies a focal right anteroinferior abdominal wall/groin protrusion corresponding to the clinically documented recurrent inguinal hernia. A single axial image cannot establish the precise relationship to the inferior epigastric vessels or definitively identify the previously implanted prosthesis.

Physical examination showed a soft, nondistended, nontender abdomen without peritoneal irritation. A reducible right inguinal protrusion with an approximately 2 × 3 cm clinically estimated defect was present, without overlying skin changes or clinical evidence of incarceration or strangulation. The patient was afebrile and hemodynamically stable at admission. Groin ultrasonography performed approximately two months before surgery described a defect medial to the inferior epigastric vessels, measuring 1.8 cm at rest

and 2.6 cm during Valsalva, with fatty and bowel-containing herniation and a previously implanted mesh visualized superior to the sac. The ultrasound report was reviewed during operative planning, but its description did not establish the plane of the previous mesh placement or identify a prior TAPP procedure. In the context of the patient-reported open repair, a previously operated posterior plane was therefore not recognized preoperatively. The actual ultrasound images were unavailable for independent review. The medial location supported a direct inguinal recurrence; no formal European Hernia Society defect-size classification was retrospectively assigned because an operative measurement using a standardized classification was not documented.

Preoperative testing was notable for anemia and markedly impaired renal clearance in the setting of established hemodialysis dependence, with a preserved platelet count, a non-elevated white blood cell count, normal coagulation screening, and no documented preoperative potassium elevation (Table *1*). Elective TAPP repair was planned because the patient's history suggested a previous anterior open repair and, therefore, a posterior plane that had not been operated upon.

Laboratory parameter	Patient result	Reference range
Hemoglobin	10.8 g/dL	13-18 g/dL
Hematocrit	33.9%	40-55%
White blood cell count	7.1 × 10^3/μL	4.5-11.0 × 10^3/μL
Platelet count	210 × 10^3/μL	150-400 × 10^3/μL
Serum creatinine	8.9 mg/dL	0.6-1.3 mg/dL
Serum potassium	4.9 mmol/L	3.7-5.2 mmol/L
Serum sodium	142 mmol/L	135-145 mmol/L
Serum glucose	83 mg/dL	70-100 mg/dL
Serum albumin	4.6 g/dL	3.4-5.4 g/dL
International normalized ratio	1.0	0.8-1.1

TABLE 1: Selected laboratory measurements before reoperation

Under general anesthesia, the abdomen was entered through a supraumbilical open Hasson technique, and two additional 5-mm working ports were inserted under direct vision. Initial inspection confirmed a right groin recurrence and unexpectedly demonstrated a fibrotically incorporated prosthetic sheet beneath or within the peritoneal covering, together with a curvilinear scar consistent with a previous peritoneal flap. The original mesh appeared to end superior to the visibly recurrent direct defect rather than to provide effective coverage of it (Figure *2*). These findings were consistent with a previous posterior laparoscopic repair, subsequently confirmed as TAPP by the original operating surgeon; the original prosthesis dimensions and the precise mechanism of its inadequate coverage remained undetermined.

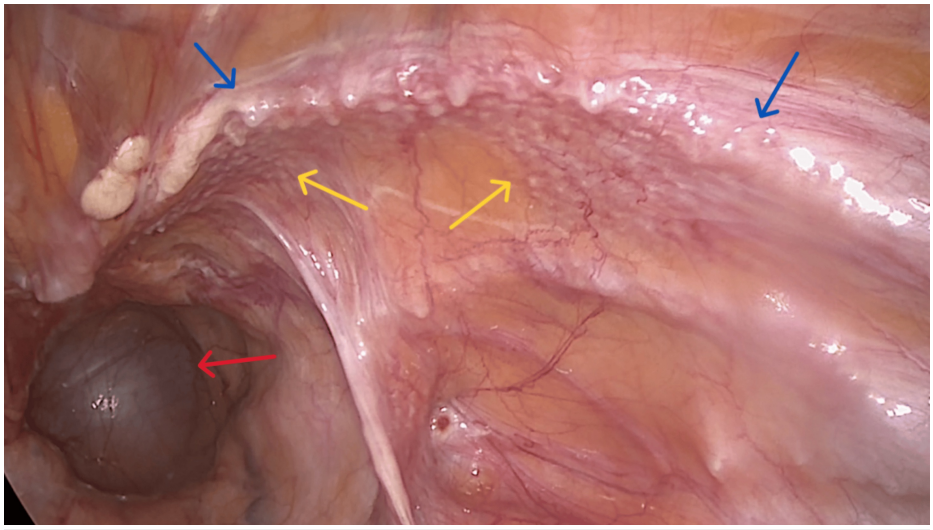


FIGURE 2: Initial laparoscopic view of the recurrent hernia and previous posterior repair

Initial inspection of the right inguinal region before repeat dissection. Yellow arrows identify the previously implanted mesh, which appears fibrotically incorporated into the peritoneum; blue arrows indicate the scar or border consistent with the earlier peritoneal flap; the red arrow identifies the recurrent groin defect. The defect appears to lie outside the effective coverage of the prior repair. This relationship suggests insufficient original coverage but does not establish whether undersizing, malposition, migration, or incomplete dissection caused the recurrence.

After identifying the previously implanted posterior mesh, the team considered changing to an anterior repair. However, inspection revealed an identifiable, safely dissectible preperitoneal plane without adhesions that significantly impeded dissection. The incorporated old mesh provided support for mobilizing the peritoneal flap rather than requiring traumatic separation from it. The team was able to identify the relevant vascular and spermatic cord structures and judged that an adequately sized new prosthetic bed could be developed laparoscopically. Given these favorable local conditions, awareness of published experience with selected re-TAPP procedures, and the anticipated additional operative time associated with changing approach, the team elected to continue laparoscopically; an anterior approach would have been reconsidered if safe dissection had not been possible. A new peritoneal incision was made approximately 2 cm cranial to the previous peritoneal scar according to the operating team's estimate. The incision began laterally, and the flap was developed towards the medial region. The previous mesh remained incorporated into the newly mobilized flap and was deliberately preserved because excision risked damaging the peritoneal tissue available to cover the new prosthesis (Figure *3*).

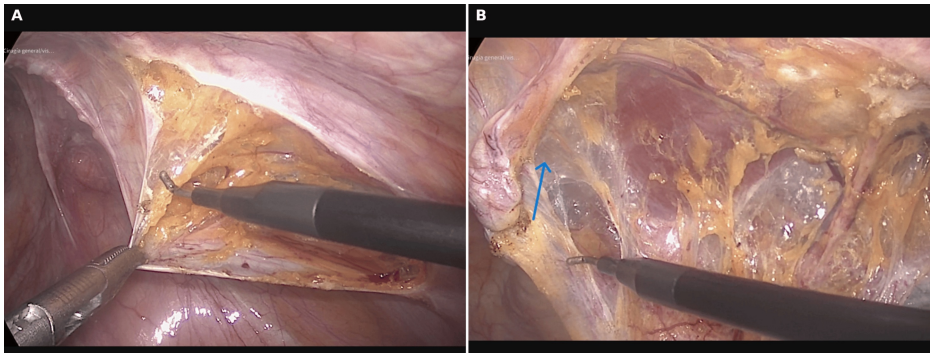


FIGURE 3: Creation and extension of the new peritoneal flap

(A) A new peritoneal incision is being created proximal to the scar from the earlier repair, with dissection of the underlying preperitoneal fat. The operating team estimated that the new incision was approximately 2 cm cranial to the previous flap. (B) The preperitoneal dissection has been extended. The blue arrow identifies the medial dissection boundary in zone 2 of the Furtado system, as designated intraoperatively. The photographs illustrate the extent of dissection but do not objectively measure prosthetic overlap.

Dissection was extended to expose the lateral zone (zone 1), medial/Retzius region (zone 2), and central

zone around the deep inguinal ring and cord structures (zone 3), following the three-zone terminology of Furtado and colleagues. The pubic region and Cooper's ligament were identified medially; the sac was reduced with careful separation from the spermatic cord structures and vessels; and the lateral plane was widened to obtain an adequate prosthetic bed. The inferior epigastric vessels, vas deferens, and gonadal vessels were identified and protected. Dissection and fixation avoided the recognized neurovascular risk territories (Figure *4*).

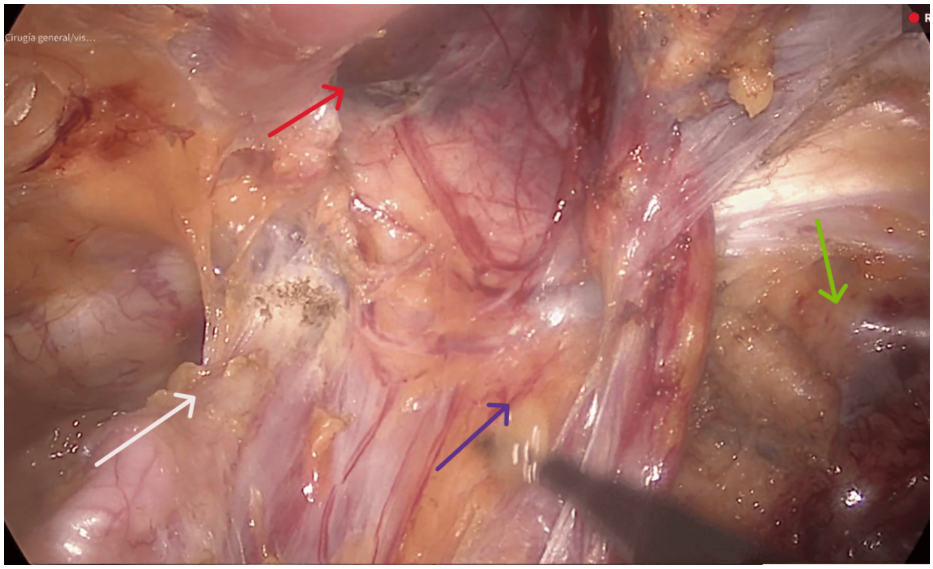


FIGURE 4: Exposure of the standardized preperitoneal dissection zones

Intraoperative view of the expanded preperitoneal dissection during repeat transabdominal preperitoneal repair. The green arrow denotes zone 1 (lateral), the white arrow denotes zone 2 (medial/Retzius region), and the blue arrow denotes zone 3 (central), according to the three-zone classification of Furtado and colleagues. The red arrow indicates the recurrent inguinal hernia defect. Zonal identification reflects the operating surgeon's anatomical correlation with the image.

Before placement of the new mesh, attenuated tissue arising from within the direct hernia cavity was grasped and advanced toward the opposite fascial margin. The operating surgeons described its origin as the interior of the hernia defect. Taken together with the operative images, this tissue was considered most compatible with a redundant transversalis fascia pseudosac, although its precise histoanatomical origin was not independently confirmed. The tissue was inverted and approximated to the opposite fascial edge using five stitches of 2-0 polypropylene, without excessive tension, achieving complete tissue coverage of the direct defect and reducing the residual cavity (Figure *5*).

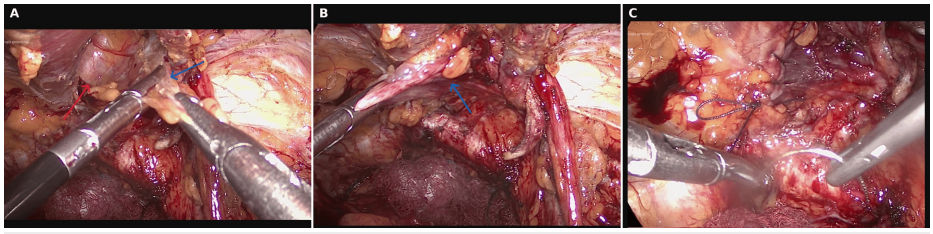


FIGURE 5: Inversion and sutured approximation of autologous tissue from the direct hernia defect

(A) Instrumental traction of tissue emerging from the direct hernia cavity; the blue arrow indicates the mobilized fascial tissue, and the red arrow denotes the hernia defect. (B) The blue arrow marks the same tissue as it is advanced toward the opposite margin to assess possible closure. (C) Sutures are visible after the tissue has been approximated and the defect covered. The sequence is most consistent with inversion/plication of redundant transversalis fascia associated with a direct hernia pseudosac; the precise tissue layer was not histologically verified. The maneuver was completed before insertion of the new mesh.

A new prosthetic mesh, approximately 15 × 12 cm according to the operative description, was prepared with an inferior slit to accommodate the spermatic cord structures. This configuration reflected the operating surgeon's customary mesh-tailoring technique; no specific patient-related anatomical necessity for the slit

was documented. The two cut edges were secured separately with tackers rather than overlapped. The mesh was placed in the newly dissected preperitoneal bed to cover the recurrent direct defect and myopectineal orifice of Fruchaud, as judged intraoperatively, and was fixed with laparoscopic tackers under direct vision while avoiding recognized neurovascular risk areas. The degree of mesh overlap beyond the defect was not measured or recorded. The operative record did not specify the tacker material or individually identify the fixation landmarks; fixation to Cooper's ligament cannot therefore be asserted. The new prosthesis lay against the prepared preperitoneal bed, whereas the original mesh remained incorporated in the peritoneal flap rather than being directly fixed over the new mesh (Figure *6*).

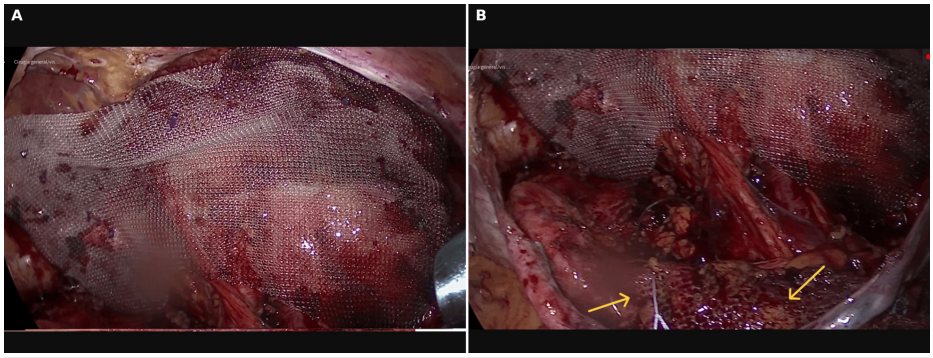


FIGURE 6: Placement of the new preperitoneal mesh with preservation of the older prosthesis

(A) The new mesh, approximately 15 × 12 cm according to the operative description, is unfolded and fixed in the dissected preperitoneal space with tackers; individual fixation sites cannot all be distinguished. (B) Inferior view of the new mesh and adjacent tissues after fixation; the yellow arrows identify the old fibrotically incorporated mesh retained within the peritoneal flap, as designated by the operating team. The new prosthesis and the mesh-bearing flap occupy distinct locations before final peritoneal closure.

After mesh fixation was completed, the peritoneal flap carrying the fibrotically integrated original mesh was returned over the newly inserted prosthesis and closed continuously with polyglactin suture. Two additional tackers were used to reinforce the medial end of the peritoneal-flap closure; this step was separate from fixation of the new mesh. The final operative inspection documented complete peritoneal coverage without visible mesh exposure toward the abdominal cavity, hemostasis, and no recognized visceral injury (Figure *7*). The ports were removed under direct vision, the supraumbilical fascial entry was closed, and the skin incisions were approximated. The procedure ended without a documented intraoperative complication, and the patient was transferred to postoperative recovery in hemodynamically stable condition.

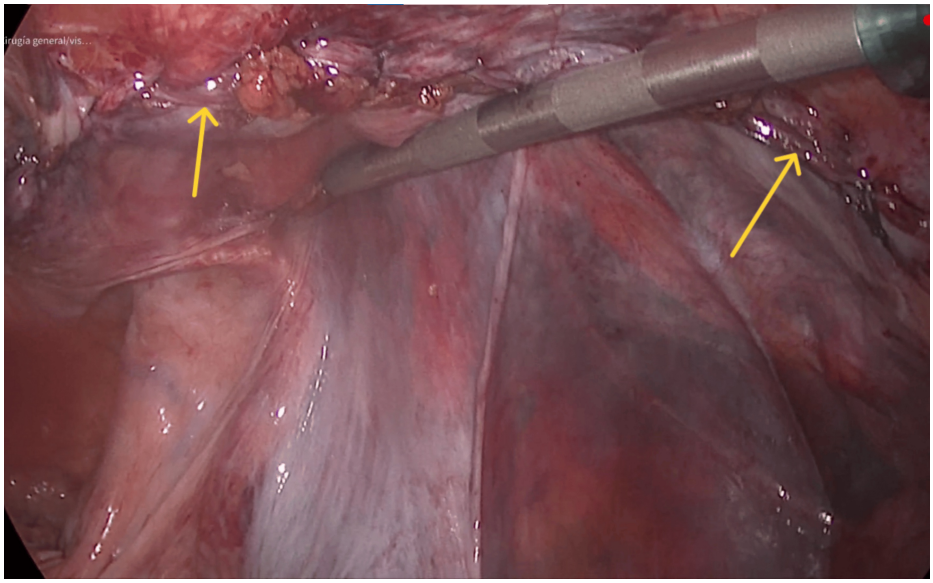


FIGURE 7: Completed closure of the prosthesis-bearing peritoneal flap

Final laparoscopic view after continuous peritoneal suturing. The yellow arrows identify the closure line of the newly developed peritoneal flap. The original prosthesis remained fibrotically incorporated into the flap, which was returned over the new preperitoneal mesh. No portion of the new mesh was reported to be exposed to the intraperitoneal cavity after closure.

At approximately one week postoperatively, outpatient evaluation showed satisfactory wound healing, the cutaneous sutures were removed, and no clinical re-recurrence was detected. At the one-month review, wound healing remained satisfactory, with no clinically detected re-recurrence, inguinal pain, or seroma. The patient described intermittent tingling localized to the right inguinal region that had begun several days after surgery and persisted at the one-month assessment. No standardized sensory examination, validated pain scale, or hernia-specific quality-of-life instrument was used. Future follow-up should include a structured sensory examination, standardized pain assessment, a validated hernia-related quality-of-life measure, and evaluation for re-recurrence. No postoperative imaging or follow-up beyond one month was available. These findings represent short-term clinical outcomes only; long-term repair durability and the risk of re-recurrence remain unestablished. The relative sequence of the clinically documented events is summarized at the end of this section (Table *2*).

Relative interval	Clinical event
Approximately four years before repeat repair	Patient initially reported bilateral open repair; the original surgeon later confirmed TAPP, although the operative report and implant details were unavailable
Approximately 19 months before repeat repair	Computed tomography documented a right inguinal hernia
Approximately 10 months before repeat repair	Patient first noticed an initially painless right groin protrusion
Approximately three months before repeat repair	Pain developed with effort and prolonged walking
Approximately two months before repeat repair	Ultrasonography documented a medial right inguinal defect, with pre-existing mesh reported above the sac
Index operation	Unexpected incorporated prior posterior mesh; mesh-preserving repeat TAPP with direct-defect tissue inversion/plication and new mesh
Postoperative week one	Healing wounds, stitch removal, no clinical recurrence
Postoperative month one	Continued healing without inguinal pain, seroma, or clinically detected re-recurrence; intermittent right inguinal tingling persisted; longer-term durability not assessed

TABLE 2: Clinical timeline expressed exclusively as intervals relative to repeat surgery

TAPP, transabdominal preperitoneal

Discussion

This case poses a different decision problem from a deliberately scheduled re-TAPP. The surgical team planned laparoscopy because the patient described an earlier anterior open repair, whereas exploration revealed an incorporated posterior prosthesis and a peritoneal scar indicating a previously operated preperitoneal plane. The former operating surgeon subsequently confirmed that the previous inguinal repair had been TAPP, although the operative report was unavailable. The preoperative ultrasound report had been reviewed, but its description of mesh superior to the sac did not distinguish anterior from posterior placement or establish the prior operative approach. Consequently, the posterior repair was not anticipated on the basis of the available clinical history and ultrasound report. This discrepancy underscores the importance of establishing the previous operative plane whenever feasible, including by obtaining the original operative record or communicating with the treating surgeon [1,2].

Once the unexpected posterior implant was recognized, the team considered whether to change to an anterior repair or continue laparoscopically. In the present operation, the preperitoneal plane remained clearly identifiable, dissection was not materially obstructed by adhesions, and the old mesh was incorporated into the peritoneal flap in a manner that facilitated its mobilization without explantation. Key cord and vascular structures could be identified and protected, and sufficient space could be developed for new prosthetic coverage. In this setting, the surgeons considered published re-TAPP experience and the expected additional time associated with changing the operative strategy before electing to proceed. A change to an anterior approach would have remained appropriate if safe dissection had not been achievable. This re-TAPP therefore represents a selected exception rather than routine management: anterior repair remains the guideline-preferred approach after failure of a previous posterior mesh repair [1,2]. Completion of this individual procedure does not establish that routinely repeating TAPP is preferable to an anterior Lichtenstein repair, particularly in older patients with major systemic comorbidities.

The available re-TAPP evidence is informative but predominantly retrospective and drawn from selected centers. Fernandez-Alberti and colleagues described 28 attempted re-TAPP procedures after prior laparoscopy, of which 24 were completed laparoscopically and four required conversion to open surgery; one re-recurrence was reported in the re-TAPP cohort, while the authors reported two re-recurrences across their combined laparoscopic and open groups [3]. Shenoy and Makam described 16 relaparoscopic repairs (15 TAPP and one enhanced-view totally extraperitoneal procedure), no conversions, and no documented re-recurrence during reported follow-up of two to nine years, although seromas and transient groin pain occurred [4]. Their anatomical explanations of failure included mesh migration, insufficient prosthetic dimensions, and fixation problems, mechanisms that closely resemble the suspected undercoverage visible in our operative photographs.

Newer studies sharpen rather than settle this debate. Thibaud and colleagues reported 51 re-TAPP

procedures and 25 anterior repairs after previous laparoscopic repairs, with conversion in 7.8% of attempted re-TAPP cases, reported re-recurrence rates of 3.9% versus 4.0%, respectively, and a shorter hospital stay in the re-TAPP group [5]. By contrast, Tabriz and colleagues compared 48 repeat totally extraperitoneal repairs with 45 Lichtenstein operations; repeat totally extraperitoneal repair required conversion in 27.3% of cases and was associated with more second recurrences, supporting a change of plane [6]. The techniques in these studies are not interchangeable, and differences in case mix and follow-up preclude a pooled inference from their crude event rates. At most, they support selective posterior reintervention by surgeons capable of navigating altered anatomy, with a readiness to change approaches when exposure or tissue safety is compromised.

One plausible, but unproven, explanation for recurrence in this case is insufficient effective coverage of the direct defect by the prior prosthesis, as suggested by its intraoperative appearance. Hernia recurrence is multifactorial, and the photographs cannot differentiate with certainty among an undersized primary mesh, inadequate medial dissection, suboptimal original positioning, postoperative mesh displacement, or a combination of these factors. Nevertheless, the location of the visible defect relative to the old implant provides a concrete hypothesis rather than merely a retrospective assumption of “technical failure.” The three-zone concept described by Furtado and colleagues (lateral zone 1, medial zone 2, and central zone 3) provides a reproducible anatomical vocabulary for explaining the repeat dissection and eventual coverage of the myopectineal orifice [7].

Retention of the original prosthesis was a deliberate reconstructive decision. Because the mesh was fibrotically incorporated into the peritoneal envelope, attempting to remove it could have damaged the peritoneal flap or required aggressive dissection close to vessels, cord structures, or the bladder. This is consistent with the technical cautions in the redo-laparoscopic literature: Shenoy and Makam expressly discouraged elective removal of a well-incorporated previous mesh because of the risks of neurovascular or bladder injury and peritoneal loss [4]. In the present case, the old mesh remained with the peritoneal flap, whereas the new prosthesis was positioned in the freshly developed preperitoneal bed. This should be distinguished from direct mesh-on-mesh superposition within a single fixed plane. No operative evidence of infection, fistula, or another compelling indication for explantation was presented. The absence of short-term clinical problems does not establish the long-term behavior of two retained prostheses.

The additional autologous tissue maneuver is also clinically pertinent but not wholly new. Li and Zhang described inversion of attenuated transversalis fascia and closure of the direct hernia cavity with barbed suture in 25 men with 36 hernia sides, observing one clinically significant seroma during 4-13 months of follow-up [9]. Abraham described fixation of the lax direct hernia pseudosac to Cooper's ligament in 56 patients undergoing 72 repairs, without clinically detected seromas during a six-week follow-up [10]. Gumus and Gul studied transversalis fascia inversion in TAPP repairs and found less seroma formation in their retrospective comparison [11]. These interventions differ in suture construct and fixation site but share the rationale of obliterating dead space. The photographs from our patient most closely suggest inversion or advancement of a redundant direct hernia pseudosac rather than a flap harvested from the transversus abdominis muscle or an implanted autologous “plug.” Without direct operative confirmation of the tissue layer, an unequivocal claim regarding its histoanatomical identity would not be justified.

Whether closure of direct defects prevents subsequent recurrence remains uncertain. In a 53-patient retrospective cohort covering 75 direct hernias, Ng and colleagues reported three one-year recurrences in the nonclosure group and none in the closure group, but the difference was not statistically significant [12]. A systematic review by Petersen and colleagues suggested potential benefits of defect closure for recurrence and seroma, while emphasizing the small number and methodological limitations of the available studies [13]. A 2026 randomized trial of transversalis fascia plication in 146 patients with primary direct hernias reported a 30-day incidence of clinically detected seroma of 0% with plication versus 12.3% without ($p = 0.002$) [14]. Crucially, the trial excluded recurrent hernias and used short follow-up for durability-related endpoints. These findings provide an anatomical justification for the additional maneuver but cannot demonstrate that the present patient's adjunctive suturing reduced recurrence risk or that the maneuver is effective specifically during re-TAPP.

A further technical consideration was the inferior slit in the approximately 15 × 12 cm prosthesis, made as part of the operating surgeon's customary mesh-tailoring technique to accommodate the spermatic cord structures rather than in response to a documented patient-specific anatomical requirement. The two divided margins were secured separately with tackers without overlap. The team aimed to maintain coverage of the recurrent direct defect and the myopectineal orifice through broad preperitoneal dissection and careful positioning, although the extent of overlap was not objectively measured. The slit is not a standard requirement of TAPP. International Endohernia Society guidance recommends against routine mesh slitting because the slit may constitute a potential site of subsequent recurrence [15]. Separate fixation of its edges does not eliminate this vulnerability. Accordingly, clinical follow-up should specifically assess for re-recurrence, including at the slit region, while also documenting the persistent sensory symptoms; the one-month outcome cannot establish long-term durability.

This report has strengths: multiple original intraoperative images, a clear initial history-versus-anatomy discrepancy, direct visualization of the recurrent defect in relation to the incorporated old mesh, and

sequential documentation of flap development, autologous defect approximation, new mesh placement, and final peritoneal closure. Its limitations are equally important. Although the former operating surgeon confirmed that the earlier procedure had been TAPP, the original operative report and mesh specifications were unavailable; the mechanism of recurrence was inferred rather than proven; the tissue forming the pseudosac was identified anatomically but not histologically; the exact mesh-tacker attachment sites and type of tacker were not specified in the operative record; no objective measurements of new mesh overlap or standardized postoperative sensory, pain, and quality-of-life scores were provided; and follow-up extended only one month. Persistent localized right inguinal paresthesia at that visit warrants attention during subsequent follow-up. In addition, the favorable result derives from a single patient and cannot support a comparative effectiveness claim. These constraints should accompany any surgical teaching extracted from the case.

Conclusions

Unexpected identification of an incorporated posterior mesh during laparoscopic repair of a recurrent direct inguinal hernia requires reassessment of the operative anatomy and treatment strategy. In this patient, the surgeons completed a repeat preperitoneal repair by retaining the mesh-bearing peritoneal flap, developing a new dissection plane, approximating tissue consistent with the direct hernia transversalis fascia pseudosac, and placing a new prosthesis with final peritoneal coverage.

The observed course was favorable at one month apart from intermittent right inguinal paresthesia. Because this report describes one patient with only one-month follow-up, long-term repair durability and the risk of re-recurrence remain unestablished. Repeat posterior repair in this setting should be regarded as a selected exception; anterior repair remains the guideline-preferred approach after failure of a previous posterior repair. The apparently insufficient coverage provided by the original mesh is a hypothesis regarding the cause of recurrence rather than an established mechanism. The principal value of the case lies in documenting intraoperative decision-making, mesh preservation, and adjunctive fascial defect closure.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

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Disclosures

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