



## “WAYS OF PREVENTING COMPLICATIONS AND RECURRENCES IN THE SURGICAL TREATMENT OF POSTOPERATIVE ANTERIOR ABDOMINAL WALL HERNIAS”

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### Article history:

**Received:** September 14<sup>th</sup> 2025

**Accepted:** October 10<sup>th</sup> 2025

### Abstract:

As is known, the methods of anterior abdominal wall reconstruction used today undoubtedly have significant advantages and are continually being improved. However, despite these achievements, postoperative recurrences and complications are still observed with various techniques of hernioplasty, ranging from approximately 23% to 65%. According to the literature, clinical observations indicate that there is no definitive solution in selecting a surgical method for anterior abdominal wall hernias that can guarantee a 100% positive outcome. Modern alloplastic hernioplasty using synthetic biomaterials faces numerous challenges related to ensuring the reliability of surgical techniques and improving patients' quality of life in both the early and long-term postoperative periods.

**Keywords:** Postoperative ventral hernias, hernioplasty, anterior abdominal wall hernia surgery, laparoscopic hernioplasty, alloplastic repair for postoperative abdominal hernias.

### RELEVANCE.

One of the most common complications of anterior abdominal wall hernias observed in the long-term postoperative period is postoperative ventral hernias (PVH), which may develop regardless of the type or location of the previous surgical procedure. The development of postoperative hernias, which often progress over a long period, is characterized by significant variability in clinical manifestations. The clinical importance of postoperative ventral hernias remains high because their incidence continues to increase, accounting for up to 29% of all abdominal hernias. This trend is associated with the growing number of laparotomic surgeries and the persistent difficulties in treating large and complicated hernias, which, despite the rapid development of new techniques, are still predominantly managed using traditional approaches. In such cases, the recurrence rate, according to various authors, ranges from 22% to 64%. Given these figures, there is a need to develop improved methods for the prevention and treatment of PVH.

#### Aim of the study:

To evaluate the outcomes of primary surgical interventions for anterior abdominal wall hernias, to identify the causes of recurrence, and to improve the quality of surgical treatment through the selection of optimal methods and techniques of alloplastic hernioplasty. Materials and Methods.

A retrospective analysis of 167 medical records of patients with uncomplicated postoperative ventral hernias was conducted, all of whom underwent repair using a polypropylene mesh implant. The study included two groups of patients: the first, the main group (MG), consisted of 51 patients who received standard treatment with a synthetic endoprosthesis; the second, the comparison group (CG), included 116 patients who underwent prosthetic repair using our proposed technique, in which the endoprosthesis was isolated from the subcutaneous tissue by the tissues of the hernial sac.

In both groups, women predominated: 108 female and 59 male patients. In the MG, the "onlay" technique was used, with supraponeurotic placement of the endoprosthesis. The CG consisted of patients who underwent the "sublay" technique with retromuscular placement of the implant. During surgery in the CG, lightweight or standard polypropylene mesh endoprostheses "Esfil" (Lintex, Saint Petersburg) were used, whereas in the MG, "Ethicon" (USA) meshes were applied.

### RESULTS.

In the main group, recurrence of postoperative ventral hernia was observed in 1 patient within an average follow-up of 6 months to 3 years. In the comparison group, hernia recurrence was detected in 7 patients. Postoperative wound complications occurred in 10 patients in the MG, whereas with our proposed



technique and retromuscular repair, only 1 case of complications was noted.

Texas Journal of Medical Science. 2022; 8, 84–85.

### **CONCLUSIONS.**

Reconstructive repair of the anterior abdominal wall in cases of postoperative recurrent hernias should preferably be performed using synthetic bioprotheses with submuscular placement. For these purposes, the use of standard or lightweight mesh types is recommended, as this significantly reduces the rate of postoperative complications.

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