

Comparative analysis of the characteristics of modern suture materials in the prevention of complications in surgical wounds in the practice of abdominal surgery.**M.M. Madazimov, Kh.A. Kurbanov**

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Relevance. Currently, long-acting suture materials are used in surgery, which allow tissues to grow together differentially, taking into account the peculiarities of their structure and renewal periods. The emergence of new suture materials in modern surgery creates new technological requirements for the study of atraumatic surgical needles: this is a decrease in the diameter of the punctured channel, resistance, quality of fixation of the thread in the eye of the needle, etc.

The aim of the study. The aim of the study is to study the assessment of the comparative characteristics of modern suture materials in the prevention of complications in surgical wounds in the practice of abdominal surgery

Materials and methods of the study. To solve these problems, a retrospective analysis of diagnostic and therapeutic manipulations was conducted in 150 hospitalized patients with surgical intervention, on the basis of which an algorithm for diagnosis and treatment using minimally invasive methods was developed. They assessed the effectiveness of using modern sewing materials.

To conduct the study, depending on the diagnostic and treatment methods used, we formed 2 groups of patients, standardized by age and gender: the main group (n=98) and the comparison group (n=30).

Results of a clinical study. We have seen that modern surgical absorbable suture materials with an antibacterial coating in the examined patients retained optimal mechanical properties in aggressive biological environments Visryl Plus, PDS Plus, in vitro for 30 days, which allowed them to be used for the imposition of a series of continuous intergalactic and biliodigestive anastomoses in abdominal surgery.

We observed that the use of dynamic biomechanical modeling of sutures on the aponeurosis of the anterior abdominal wall, taking into account the elasticity of the aponeurosis and experimentally obtained values of the surgical thread in patients using modern suture materials, allowed us to calculate the optimal characteristics of a single-row continuous suture, as well as select differentiated surgical suture material.

During our surveys, we noted that the use of an improved concept of infection prevention in the surgical area in our patients reduced the risk of postoperative purulent-septic complications from 14.2 to 1.6%.

Conclusion. The results of our research are directly related to practical medicine. Taking into account the optimal characteristics of the continuous suture, the individual characteristics of each patient and various indications for the use of modern synthetic absorbable suture materials, the percentage of implantation infection in surgical patients in abdominal surgery has decreased due to the differentiated use of modern surgical suture materials with antibacterial coating.