



EVALUATION OF THE AVERAGE SOAKING FLOW RATE OF MANNITOL ANTIBIOTIC SOLUTION PER INTRAOPERATIVE POLYFLAGE, TIME, CONSISTENCY, SUBSTANCE RETENTION IN THE FILAMENT, AND SUTURE CONDITION

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Annotation: According to the World Health Organization (WHO), the incidence of intestinal suture failure ranges from 0.3 to 18.6% of observations. Today the problem of intestinal suture insufficiency is considered to be one of the ageless problems of abdominal surgery. Therefore, the growth of abdominal cavity pathologies, including oncologic diseases, the absolute growth of traumatic lesions of abdominal organs and the increase in the number and complexity of abdominal surgeries due to firearms have forced in recent decades to revisit the problem of intestinal sutures.

Keywords: mannitol, antibiotic solution, sutures.

Introduction: Optimal for modern surgery is the creation and testing of suture material with high manipulative and mechanical properties, biodegradability, smooth surface of equal diameter, low reactogenicity, absence of toxic, allergenic, teratogenic action, antibacterial properties [2,9].

Currently, suture materials with resorption time from 7 to 180 days are used in surgery, which allows differentiated tissue splicing taking into account the peculiarities of NX structure and regeneration time [6].

The emergence of new surgical suture materials forms new technological requirements for the study of atraumatic surgical Needles: it is the reduction of the puncture channel diameter, wear resistance, quality of thread fixation on the needle eye, etc. Other authors defined only

their basic technical characteristics, which did not reflect the mechanical and rheological properties important for practical use in surgery [1,4]. The properties of some modern sewing materials and atraumatic needles allow differentiated single-row continuous sutures in abdominal surgery [3,6].

In Uzbekistan, to date, no unified fundamental standards have been developed for the operative technique of interorgan anastomosis and laparotomy RAS suturing. Traditional approaches to the use of continuous multi-row knotted stitch with non-absorbent woven sewing materials prevail [7], which is accompanied by a high percentage of postoperative complications: euteration - 0.3-3.0% [8]; postoperative ventral hernias 2.015.9% [10]; ligature fistulas 1.05.7% [5].

Purpose of the study: evaluation of the average soaking consumption of mannitol antibiotic solution per intraoperative polyflament, time, consistency, substance retention in the thread and suture condition

Materials and methods of the study. The present study is based on the results of surgical treatment of 481 (100.0%) patients with various abdominal cavity pathologies treated in the surgical department of Andijan Regional Multidisciplinary Medical Center in 2020-2023. Patients participating in the study were brought by us to the clinic during primary and repeated examinations in accordance with a specially developed questionnaire "protocol of post-diagnostic examination of patients with abdominal diagnosis". Before surgical treatment the patients' condition was evaluated not only visually, but also by means of additional examinations. The influence of suture materials on the terms and levels of recovery of the functional state of organs and tissues after surgery was studied.

In abdominal surgery one of the evaluation criteria is a certain degree of exclusion of pathological conditions in patients depending on sex and age. Physical advantage is the influence of suturing on the wound and the factor of premature wound healing. It should be separately noted that the appointment of surgical interventions at late terms (complicated) is caused by anatomical features of RAS, tactical errors and difficulties in treatment. Improper organization of rehabilitation period after surgical intervention or lack of dispensary control can lead to poor results.

Considering the tactical and technical aspects that were implemented, the patients were divided into two study groups: the comparison group-in 2020-2021, 246 (51.1%) patients traditionally used polyflament sutures; while the main group, consisting of 235 (48.9%) patients in 2022-2023, used antibiotic- and mannitol-impregnated sutures in surgical interventions using sutures exposed to laser light. This prophylactic measure leads to a

shorter rehabilitation period and improved early and distant postoperative results. The fact that absorbable and non-skin-absorbable sutures were used in all methods of abdominal surgery in both groups when suturing the tissues of the same internal organ has equal chances when comparing the results in both groups.

The age distribution of patients according to BSST classification considers the age range of 25-44 years, middle age of 45-59 years and elderly above 60 years. In our study we categorized by decades. Males in our observations were 202 (41.9%) and females-261 (58.1%).

While 93.3% of patients in the main group were able-bodied in 93.3% of cases, they were 95% in the control group and 95% in the whole group-95.4%. Pearson χ^2 test-43.7; df=44; R=0.014. The mean age was 43.7 ± 2.9 years.

The following therapeutic and prophylactic directions applied in the main group served as the basis for scientific research:

- in order to prevent the development of specific local complications of the treatment phase:
 - ✓ determination of the amount of soaking of antibiotic and mannitol solution in an open manner on intraoperative polyflams;
 - ✓ determination of the optimal time of soaking and exposure to polyflamm;
 - ✓ determination of indications for permanent intradermal sutures;
 - ✓ achieving aesthetic results with the use of preparations influencing the mechanism of secondary hypertrophic or keloid scars formation by the method of acute dermotension by physiologic assessment of tissue deficit in skin suture burns;
 - ✓ determination of the distance and constancy of laser beam exposure to the intraoperative wound
- prevention of deterioration of functional and aesthetic results in the postoperative period.

Scheduled surgical operations were performed by open and closed methods, these are operations on retroperitoneal organs and preperitoneal wall. The diagnoses are divided by the time of fulfillment into two parts: urgent and planned surgeries. Of 481 (100%) diagnoses, planned was established in 413 (85.9%) cases, and 68 (14.1%) patients (Pearson χ^2 test-29.19; df=8; R=0.0012.) underwent urgent operations. It should be noted that an increase in acute inflammation in the abdomen on intensive imaging was considered an exclusion criterion and was an indication for an emergency surgical procedure. A breakdown of surgical procedures by year can be seen in Table 2.2.

In the study unit, patients were recommended antibiotics in the preoperative period for antibiotic prophylaxis (according to national guidelines) and antibiotic therapy (according to pharmacotherapy guidelines).

Our observations showed that out of 481 (100%) patients enrolled in the study, 106 (22%) patients had refusal of prescribed antibiotics. This was explained as follows: 22 (20.7%) out of 106 patients had low sensitivity to antibiotics, 64 (60.4%) had history of allergy (5 (7.8%) had rash, 12 (18.7%) experienced nausea, 31 (48.4%) experienced headaches, 6 (9.4%) experienced dyspnea and 10 (15.6% vs.) and 20 (18.9%) had not previously taken antibiotics. Pearson's χ^2 test-45.37; df=6; R=0.0015. In this case, antibiotics were selected with individualized patient care. In a separate case of diseases accompanied by local peritonitis (emergency laparotomy), bacpasev was extracted from the wound as indicated and sensitivity to antibiotics was determined according to the results of bacteriologic examination.

Conclusions: The program of preventive measures carried out in the period after abdominal surgery should be based on tactical and technical aspects of the peculiarities of the local condition (localization, area, nature of the defect and degree of functional disorders), in particular, the frequency of unsatisfactory

functional results after the use of conventional polyfilaments was $17.2 \pm 2.1\%$, cosmetic- $21.8 \pm 1.9\%$, it depends on the quality of rehabilitation measures after suture material implantation.

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