



EVALUATION OF THE RESULTS OBTAINED BY VARIOUS METHODS IN TRADITIONAL SURGICAL PRACTICE AND THE USE OF OPTIMAL SUTURE MATERIALS

Kurbanov Khasan Askarovich

*Assistant of the Department of Faculty and Hospital Surgery
Andijan State Medical Institute*

SUMMARY

The article discusses the results obtained by various methods in traditional surgical practice and the use of optimal suture materials. The study is based on the results of surgical treatment of 481 (100.0%) patients with various pathologies of the abdominal organs who were treated in the surgical department of the Andijan Regional Multidisciplinary Medical Center in 2020-2023. Before surgical treatment, the condition of the patients was assessed not only visually, but also through additional examinations. The influence of suture materials on recovery time and the level of functional state of organs and tissues after surgery was studied.

KEYWORDS. Suture material. Surgery. Regeneration. Relevance of the topic.

RELEVANCE

In surgical practice, the main emphasis on focusing on the seroma causes the wound to suppurate, open the sutures, or remove the sutures. Puncture methods are often used in the treatment of seromas[1]. Large seromas affect the general condition of patients, causing not only a local but also a general disorder.

Methods of identifying risk factors and prevention of postoperative purulent-inflammatory complications in emergency surgery, the frequency of their occurrence is much higher, from 2.8% to 23.5%, and after emergency cases, this indicator increases to 26.1%[2]. For example, local purulent-inflammatory complications during gall bladder surgery occur in 9.3% of surgical procedures for diseases of abdominal organs; on the pancreas in 26%; y in the colon in 23.5% ; 21.1% with intestinal obstruction; 15.8% with acute appendicitis; with gastric operations can be observed from 1.6 to 15.8%. According to other authors, post-appendectomy wound suppuration occurs from 2.5 to 60.7%. Complications after colon surgery can be observed in 11.1-60.0%[4].

The problem under consideration is that the frequency of purulent-septic complications after urgently performed surgical operations is 23.5-71.2%, and in planned operations, this indicator is 0.29%-30%[3]. This situation is described as follows: in urgent surgical pathologies, patients often present with symptoms of intoxication, which in turn is due to the fact that the protective function of the body is in a decompensated state . It should also be noted that urgent surgery is performed in conditions of high contamination of organs and tissues, and in the group of "conditionally dirty" and "dirty" operations, with a high risk of post-diagnosis purulent complications[6,7].

Much research is being done to develop various interventions to prevent surgical site infection. Antibacterial therapy, as well as local application of low-intensity laser rays, are included in the scope of secondary preventive measures. Also, the prevention of surgical site infection is considered one of the insufficiently studied methods, but the use of various (usually antimicrobial) biologically active suture materials during surgery is considered one of the solutions to this problem[5].

PURPOSE OF THE STUDY

Study of the results obtained by various methods in traditional surgical practice and the use of optimal suture materials.

RESEARCH MATERIALS AND METHODS

This study is based on the results of surgical treatment of 481 (100.0%) patients with various abdominal pathologies treated in the surgical department of Andijan regional multidisciplinary medical center in 2020-2023. The patients included in the study were completed by us during the primary and repeated examinations in the clinic according to the specially developed questionnaire "Protocol of examination of patients after abdominal examination". Before surgical treatment, the condition of patients was evaluated not only visually, but also through additional examinations . The effects of suture materials on recovery periods and levels of the functional state of organs and tissues after the operation were studied.



RESEARCH RESULTS

In traditional surgical practices, the study of the results obtained from different methods allows the use of optimal suture materials. It should also be taken into account that the obtained results depend on the general surface of the wound and the level of complexity of the performed operation. Let's study the characteristics of dependence on the inspection area with the help of table 1.

Table 1

A comparative analysis of the direct effect of suture materials on the results depending on the inspection area

Cursors	Plastic methods						Total
	ChBE	OR	XE	IR	SE	B	
Patients in the comparable group	91	36	89	16	2	7	241 (100%)
Positive results							
Small	44					2	46
Medium	15	20	49	6	2	3	95
Big	15	8	27	6		2	58
General	74	28	76	12	2	5	197 (82.8%)
Negative results							
Small	3						3
Medium	5	2	5	2		1	15
Big	9	6	8	2		1	26
General	17	8	13	4		2	44 (18.2%)

Izox: * - EH – elimination of hernia; GR-gastric resection; XE-cholecystectomy; BR-bowel resection; SE-splenectomy; B-general type of operations.

Good results of abdominal surgery were observed in small and large areas. Good direct results in small and large surgical procedures were observed in 141 (71.6%) of 197 patients. In the case of large sizes, this indicator was only 58 (29.4%). 44 negative results were observed in 59.1% of large-field surgical operations. This can be explained as follows. As mentioned above, large-scale surgical operations are directly related not only to the cavity or parenchymatous organ and tissue, but also to the thickness of the used suture material, its effect on the tissues, the restoration of intestinal peristalsis, and the regeneration of the intestinal loop.

The long-term results of the surgical procedures performed in the pathologies of the abdominal organs were determined after 6-12 months by reorganizing the patient's visit to the clinic. According to this, the long-term results, both functional and cosmetic, were made according to the criteria presented in chapter 2, according to the types of operations included in the comparative group and the condition of the wound area. The analyzes show that the location, area and depth of the scar deformation, its size and depth are considered to be one of the reasons for the reduction of the immediate result. In addition, according to the instructions, abdominal organs were examined by ultrasound, and in some cases, X-rays were performed. The distribution of the long-term results showed that in the long-term after the examination, complications such as dome formation, expansion and non-swelling of the scar were observed (Table 2).

Table 2

Frequency of outcomes after practice by type of practice

Cursors	Plastic methods						Total
	ChBE	OR	XE	IR	SE	B	
Patients in the control group	91	36	89	16	2	7	241 (100%)
Complications:	17	9	11	7		3	50 (20.7%)
The dome is scarred	6		3	2		1	12 (24%)
Scar enlargement	2	3	3	1			9 (18%)
A lump under the skin	5	3	3	1		1	13 (26%)
A draining wound	2	2		3		1	8 (16%)
A contagious disease	2	1	2				5 (10%)

Izox: * - EH – elimination of hernia; GR-gastric resection; XE-cholecystectomy; SE-splenectomy; B-general type of operations.

As can be seen from this table, the number of complications in the early result was 44, while in the long term this indicator increased to 50, that is, from 18.2% to 20.7%. The average is 19.1 ± 0.7 , Pearson's χ^2 test is 19.712 ; $df=4$; $R = 0.0012$. The most common complication is the feeling of a nodule under the skin, depending on these two criteria. If the results are based on the results after 6 months after the examination, the period of absorption of the used polyfilament is low, the other side of the issue is characterized by the low body weight of the patients and the rough examination. Large scars accounted for 5% of 12 patients, which is evaluated



by the fact that patients did not receive comprehensive preventive treatment aimed at absorption of scars during the postoperative rehabilitation phase.

When assessing the functional state of patients, the state of the patients during the satisfaction of their needs without physical movements is considered, while the cosmetic aspects, the effect of each performed procedure on the psycho-emotional state of the person was studied. These patients are expected to acquire skills in relation to the practice, early employment, activeness in finding their place in the surrounding society, and other criteria. This directly affects the quality of life. In the assessment of cosmetic and functional condition, 3 main criteria were evaluated: good, satisfactory and unsatisfactory. We can see this in Table 3.

Table 3
Analysis of remote results based on the type of survey conducted

Types of operations	A Distant Result						Number of patients (%)	
	Good		Conical		Without cones			
	n	%	n	%	N	%	N	%
EG	22	24.2	52	57.1	17	18.7	91	37.8
GR	8	22.2	19	52.8	9	25	36	14.9
XE	21	23.6	57	64.0	11	12.4	89	36.9
IR	3	18.8	6	37.5	7	43.8	16	6.6
SI	1	50	1	50			2	0.8
B	2	28.6	2	28.6	3	42.9	7	2.9
Total	57	23.7	137	56.8	47	19.5	241	100.0

Izox: * - EG – elimination of hernia; OR-gastric resection; XE-cholecystectomy; SE-splenoectomy; B-general type of operations. Analysis of the results for all parameters shows that the best long-term result is the result after cholecystectomy. Despite the fact that the majority of operative procedures of this type were performed in traditional ways, unsatisfactory results were achieved in only 12.4% of cases. In the operation of hernia removal, the highest good result was achieved in 22 (24.2) patients. The average relative error in the analysis of the results should be below $R \geq 0.0012$, according to Pearson's χ^2 test-8.932; d indicates $f=6$. The best and conic distant result was observed in 78 (87.6%) of 89 patients. We found it necessary to express this situation as it should. The use of absorbable monofilaments of suture materials based on the criteria established in the mid-range studies has a significant effect on the time of thread absorption, the regeneration process, the reduction of the rehabilitation period, and the quality of life, which occupies an essential place.

SUMMARY

Thus, the use of traditionally used suture materials, including absorbable polyfilaments, in abdominal procedures depends on the size of the wound, its location, adhesion to the underlying tissues, and the degree of limitation. The results of the study showed that conventional absorbable polyfilaments increase the number of positive results without side effects on the surrounding healthy tissue in small, medium and large surgical procedures. Despite the fact that polyfilaments used in traditional surgical practice have several advantages, we found it necessary to improve the use of polyfilaments and develop new ones due to high complications in long-term results.

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