

CLINICAL COURSE OF ACUTE APPENDICITIS AND CHANGES IN THE MORPHOLOGY OF APPENDICITIS IN THE BUKHARA REGION

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Abstract

A retrospective analysis of the medical histories of 183 patients with peritonitis that developed against the background of acute appendicitis in the Bukhara and Vobkent subbranches of the Republican Scientific Center for Emergency Medical Care in 2020-2021 was conducted. Depending on the time of admission to the hospital, all patients were conditionally divided into the following subgroups: 1A - subgroup (n=130) admitted to the hospital within 6-8 hours from the onset of the disease and admitted to the hospital within 16-20 hours from the onset of the disease and underwent appendectomy and drainage of the abdominal cavity 1B - subgroup (n=50), 1B - subgroup (n=3) admitted to the hospital within 21-36 hours from the onset of the disease and underwent appendectomy, sanitation of the abdominal cavity and drainage. The results of the analysis showed that early diagnosis and early appendectomy in patients affected the reduction of the recovery day after the disease and the return to active life.

Keywords: Peritonitis, hospital, appendectomy, abdominal cavity, drainage, diagnosis, active life.

Introduction

Peritonitis as a complication of acute surgical diseases and injuries of abdominal organs occurs in 15-30% of patients [4]. To date, the problem of peritonitis treatment remains one of the most pressing due to the high mortality rate, which, despite constantly improving treatment methods and the use of modern antibacterial drugs, does not tend to decrease and fluctuates in a wide range from 18.3% to 62.8% [1,2,4]. Peritonitis is a polymicrobial disease involving a wide range of anaerobic and aerobic gram-negative microorganisms. The addition of anaerobes to aerobic microorganisms usually aggravates the course of the purulent-inflammatory process. Over the past decades, significant changes in the sensitivity of the main pathogens of widespread purulent peritonitis to antimicrobial drugs have been identified [1,4]. With the increase in the duration of use of a particular antibiotic and an empirical approach to treatment, the frequency of resistant forms in microbial populations has increased, and as a result of the introduction of new drugs into practice, the spectrum of resistance has expanded and multiply resistant strains have formed [1]. Success in the treatment of such a serious disease as peritonitis is ensured by a set of therapeutic measures, one of which is antibacterial therapy. It is known that irrational use of antibiotics in the postoperative period significantly worsens the results of treatment, increasing the level of adverse outcomes [2,4]. To carry out rational antibacterial therapy, it is necessary to accurately and quickly determine sensitivity to a wide range of antibiotics. Therefore, at present, the development of new methods for express diagnostics of microflora in peritonitis with the identification of dominant pathogens and prediction of their probable dynamic change is of great importance. This will



significantly accelerate the transition to selective etiotropic antibacterial therapy and avoid the adverse effects of long-term unjustified use of broad-spectrum antibiotics [3].

Objective. improve the results of surgical treatment of patients with peritonitis by studying the effect of hot climate on the development of peritonitis.

Materials and methods

183 patients were examined in the Bukhara and Vabkent branches of the Republican Emergency Scientific Center for Medical Care in 2020-2021. Taking into account the method of surgery performed, all examined patients were conditionally divided into conditional subgroups. The first subgroup A included 130 (71.2%) patients with appendicular peritonitis admitted within 6-8 hours from the onset of the attack and underwent appendectomy, the first subgroup B included 50 (27.4%) patients with appendicular peritonitis admitted within 16-20 hours from the onset of the attack and underwent appendectomy with drainage of the abdominal cavity, the first subgroup C included 3 (1.4%) patients with appendicular peritonitis admitted within 21-36 hours from the onset of the attack and underwent appendectomy with sanitation and drainage of the abdominal cavity. For homogeneity of the groups, patients aged 18 to 45 years who did not have concomitant diseases were selected in the study. The degree of pathological changes in the appendix was determined according to the classification of V.S. Savelyev, which are given in Table 1.

Table 1. Frequency and type of pathological changes in the appendix in subgroup 1A.

Type of change	Number of patients	%
catarrhal	21	16,2
phlegmonous	109	83,8
Total	130	100

Frequency and type of pathological changes in the appendix in subgroup 1B.

Type of change	Number of patients	%
phlegmonous	36	72
gangrenous	14	28
Total	50	100

Frequency and type of pathological changes in the appendix in subgroup 1C.

Type of change	Number of patients	%
phlegmonous	1	33.3
gangrenous	1	33.3
gangrenous - perforative	1	33.3
Total	3	100

All patients in this group underwent an incision from the McBurney point according to Dyakonov-Volkovich.

Upon admission of patients, much attention was paid to collecting anamnesis. Information about pain syndrome, duration of pain, nature and localization of pain, its intensity was clarified. The presence of nausea, vomiting, dry mouth, body temperature was assessed. During examination of



the patient, the color of the skin and mucous membranes was visually assessed. Objective examination included: palpation determination of peritoneal symptoms. All patients underwent from instrumental; ultrasound examination, radiography of the abdominal cavity. From laboratory studies; general blood test, general urine test, determination of the intoxication index. Based on clinical and laboratory examinations, it was decided to perform surgical intervention on all patients: appendectomy. Of the 183 (100%) patients in the first group, 136 (73.1%) were men, of which 52 (38.2%) patients were in the first A subgroup, 54 (39.7%) in the first B subgroup, 30 (22.1) in the first B subgroup, of the total number of women there were 47 (25.7%), of which 19 (40.4%) patients were in the first A subgroup, 17 (36.2%) in the first B subgroup, and 11 (23.4%) in the first B subgroup. The subgroups of patients were synchronous in terms of gender, age, and duration of the disease. (Table 2)

Table 2. Groups of patients depending on the types of surgical treatment

Indicator	Of the total number (n=183)	1 A subgroup (n=130)	1 B subgroup (n=50)	1 C subgroup (n=3)
% Male	73,1	38,2	39,7	22,1
% Female	26,9	40,4	36,2	23,4
Average age	31,5±10,1	27,4±7,1	39,1±5,1	23,3±6,5
Duration from onset of appendicular symptoms (hours)	28,3±8,2	8,4±2,3	15,4±4,8	32,4±3,6

There were no refusals of patients from surgical intervention. All operations were performed under local-64 (35.0%) and intravenous-119 (65.0%) anesthesia (the reason for this was the desire of patients and the excited state of patients). All patients in the postoperative period underwent complex drug therapy, including correction of electrolyte-water metabolism disorders, administration of antibiotics and daily change of dressings.

Results and discussion

For comparison by subgroups, we identified the following criteria:

- duration of surgery and anesthesia.
- length of hospital stay.
- presence of complications in the early postoperative period. The results obtained are reflected in Tables 3 and 4.

Table 3. Comparative characteristics of groups I-II.

Comparison criteria	1 A subgroup	1 B subgroup	1 C subgroup	Average
Duration of operation (minutes)	37 ± 8,2	48 ± 5,2	58± 7,5	47,5±7,0
Length of hospital stay (day)	3±1,4	4± 2,4	7,8 ± 0,9	4,9±1,6

As can be seen from the comparison of the data in Table 3, the average duration of the operations performed in the first A subgroup of patients averaged 47.5 minutes, while in the first B subgroup of patients the duration of the operations took up to 58 minutes. In our opinion, this is due to peritoneal complications, which significantly affected the duration of the operation, as well as the minimization of the trauma of the operation. (Table 4)



Table 4. Comparative characteristics of complications in the main group of patients.

Comparison criteria	1 A subgroup	1 B subgroup	1 C subgroup	Average
Suppuration	2(1,0%)	11(14,8%)	2 (50,0%)	15(5,5%)
Hematoma	1(0,5%)	0(0%)	0(0%)	1(0,4%)
Infiltrate	3(1,5%)	5(6,8%)	1(25,0%)	9(3,3%)

From Table 4 it should be noted that wound suppuration in the first A subgroup was observed in 2 (1.0%) patients, in the first B subgroup - 11 (14.8%) and in the first B subgroup - 2 (50.0%). Hematoma in the postoperative period in the main group of patients on average occurred in 0.4% of cases, wound infiltrate in the postoperative period was observed in 3.3% of cases.

Table 5. Dynamics of comparative assessment of intoxication indicators, group I patients

Comparison criteria	1st day	2 nd day	4 th day	5 th day	7 th day
Body temperature	37,7±1,1	37,4±0,8	37,2±0,6	37,0±0,5	36,6±0,2
Pulse	92,0±8,0	88,0±7,5	86,0±5,5	82±4,5	76±4,0
Leukocytes	14,7±3,8	12,5±4,4	10,4±3,1	8,7±1,2	8,4±1,0
ESR	22,5±3,2	21,2±3,3	20,1±3,5	18,5±3,7	15,8±1,8
Lymphocytes	32,1±5,2	30,5±4,7	28,7±3,7	25,5±4,2	23,1±2,6
Medium-mass molecule (λ = 254 nm) conventional units.	0,84±0,02	0,72±0,02	0,61±0,01	0,49±0,04	0,35±0,02
Leukocyte intoxication index	7,7±1,2	6,8±1,3	5,5±1,1	4,1±0,5	2,7±0,9.

Table 5 shows the dynamics of intoxication indicators of the main group of patients, from which it is clear that in the first group upon admission, the pulse rate was on average 92 beats per minute, body temperature was on average 37.70C after surgical and conservative treatment, the indicators began to decrease, equal to the norm (5 days). The remaining laboratory indicators reflecting the body's response to inflammatory processes, equalized to the norm by the 7th day after hospitalization of patients in the hospital.

Conclusions

Thus, the problem of treatment and early diagnosis of acute appendicitis depending on the timing of admission of patients and the surgical approach to patients taking into account, complicated by widespread peritonitis, still remains one of the leading tasks of emergency surgeons. The subject of discussion remains the question of choosing adequate surgical tactics, when it is necessary to take into account not only the etiology, prevalence and nature of the microflora in the abdominal cavity, but also the degree of endogenous intoxication and multiple organ failure, the prognosis of the disease. In our opinion, the most effective are complex methods of dynamic sanitation of the abdominal cavity in widespread peritonitis. The use of methods of daily dynamic postoperative sanitation of the abdominal cavity significantly reduces many postoperative complications.





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