PROBLEMS OF SURGICAL TREATMENT OF ACUTE PURULENT-NECROTIC PARAPROCTITIS

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Abstract: This article analyzes the clinical outcomes of 367 patients who underwent surgery at the Proctology Department of Clinic No. 1, Samara State Medical University, between 2010 and 2023. Among them, 26 patients (7.08%) were diagnosed with purulent-necrotic forms of the disease, while 341 patients (92.92%) had perirectal tissue damage of aerobic etiology. The average age of the patients was 53.1 ± 4.9 years. All patients underwent a comprehensive diagnostic assessment including clinical evaluation, digital rectal examination, rectoscopy, transabdominal and transrectal ultrasonography, computed tomography, and bacteriological analysis of wound discharge. Emergency surgical intervention was performed in all cases. The study results demonstrated that timely and radical surgical treatment, supplemented with appropriate antibacterial and detoxification therapy, led to full recovery.

Keywords: purulent paraproctitis, necrotic paraproctitis, abscess, abscess drainage, sepsis, perirectal infection, emergency surgery.

ПРОБЛЕМЫ ХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ ОСТРОГО ГНОЙНО-НЕКРОТИЧЕСКОГО ПАРАПРОКТИТА

Аннотация: В статье проанализированы клинические результаты лечения 367 пациентов, прооперированных в отделении проктологии Клиники № 1 Самарского государственного медицинского университета в период с 2010 по 2023 г. Из них у 26 пациентов (7,08%) диагностированы гнойно-некротические формы заболевания, у 341 пациента (92,92%) — поражение околопрямокишечной клетчатки аэробной этиологии. Средний возраст пациентов составил 53,1±4,9 года. Всем пациентам проводилось комплексное диагностическое обследование, включающее клиническое обследование, пальцевое ректальное исследование, ректоскопию, трансабдоминальное и трансректальное ультразвуковое исследование, компьютерную томографию, бактериологическое исследование раневого отделяемого. Во всех случаях было выполнено экстренное хирургическое вмешательство. Результаты исследования показали, что своевременное и радикальное хирургическое лечение, дополненное адекватной антибактериальной и дезинтоксикационной терапией, привело к полному выздоровлению.

Ключевые слова: гнойный парапроктит, некротический парапроктит, абсцесс, дренирование абсцесса, сепсис, параректальная инфекция, экстренная хирургия.

INTRODUCTION

Acute paraproctitis is the most common pathology in the practice of emergency surgical proctology [1,2,3,7], while purulent-necrotic forms of the disease occur in only 3-6% of cases. In the analysis of the literature, most authors do not include necrotic paraproctitis in the scope of their research. (NP), emphasizing the extreme complexity of its diagnosis and treatment.

The development of issues of treatment of necrotic paraproctitis is determined by the fact that this disease is considered life-threatening, the mortality rate is from 15 to 40%, and with generalization of the process up to 80% [4 , 5 , 6,8]. The above is due to the fact that the etiological factor of NP is a combination of opportunistic autoflora, in which the leader-associator is

anaerobes, which are highly invasive and toxic [1 , 3 , 5], which determines the rapid generalization of the process and causes difficulties in diagnosis and the complexity of complex postoperative treatment of septic conditions.

Currently, streptococci, staphylococci, fusobacteria, spirochetes and other associations of anaerobic and aerobic bacteria are considered as pathogens [7]. Septicemia observed in NP is usually caused by streptococci [3 , 6]. According to modern literature, the anaerobic direction of the process is due to the high dose and virulence of the infecting agent against the background of decreased immunological resistance of the body [1 , 2 , 4 , 5,9]. Indeed, NP often occurs with insufficient compliance with hygiene rules in combination with diabetes mellitus. The literature also indicates other factors that affect systemic immunity and predispose to the development of anaerobic inflammation of the pararectal tissue: autoimmune diseases and the use of steroid hormones, antitumor chemotherapy, neurosensory diseases, periarteritis nodosa, etc. [3 , 7,10].

Despite the improvement of surgical techniques, the development of progressive methods of detoxification and antibacterial therapy, the treatment of acute purulent-necrotic paraproctitis still remains a complex and, in many ways, poorly resolved problem of modern surgery and proctology, which determines the need for further developments in this area.

The purpose of the study is to improve treatment tactics for acute purulent-necrotic paraproctitis.

MATERIAL AND METHODS OF THE STUDY

During the period 2010–2022, 367 patients with various types of acute paraproctitis were operated on in the proctology department of Clinic No. 1 of Samara State Medical University, among which 26 (7.08%) patients with purulent-necrotic forms of the disease. Among them, 341 (92.92%) had aerobic etiology of the lesion of the perirectal tissue. The average age of patients was 53.1±4.9 years. No statistically significant differences in the age of men and women were noted.

All patients underwent clinical examination, digital rectal examination and rectoscopy, transabdominal and transrectal ultrasound examination, computed tomography and bacteriological examination of wound discharge.

RESULTS AND DISCUSSION

In all cases, surgical interventions were performed according to urgent indications. The operation was delayed for 1-4 hours only in cases of preoperative preparation of extremely seriously ill patients. Necrotic perineal abscess was opened only under general anesthesia. The intervention was performed through a wide incision over the entire identified area of inflammatory changes, according to the type of surgical access. This allowed for a thorough intraoperative revision with an assessment of the volume of soft tissue damage, demarcation of the boundaries between visible altered and healthy tissues, detection of possible pockets and leaks. Since the main task at this point was to save the patient's life. The criteria for the viability of the resulting wound surface were distinct capillary bleeding of the tissues. The operation was completed by jet irrigation of the wound with antiseptic solutions and application of a bandage with a decasan solution. In two cases, due to necrotic changes in the rectal wall, a sigmoid colostomy was applied. In all other observations, the fecal stream was not disconnected. In no case of necrotic paraproctitis did we perform the elimination of the purulent tract at the same time as the main radical operation.

Antibiotic therapy was started 30-40 minutes before the operation. Intensive detoxification, infusion, symptomatic therapy were also performed, and tube feeding with balanced enteral mixtures was carried out. After the operation, examination of the wound surfaces and dressings

were performed several times a day, on average 2-3 times. In 72% of patients, newly developed foci of necrosis were detected in the first few days of the postoperative period, which were removed acutely during dressings. Determination of the boundaries of the prevalence of irreversible pathological changes is very important in the surgical treatment of acute purulent-necrotic paraproctitis. This is necessary to perform necrectomy of the optimal volume, which significantly affects the treatment outcome. In our study, we relied on the laser Doppler flowmetry method, considering the characteristics of tissue microcirculation to be an important indicator of the degree of prevalence of the inflammatory process.

Remote results were monitored in 21 (80.8%) patients by examination and questionnaire method. Most of them (85.7%) did not present any complaints that required any participation. However, extrasphincteric fistulas of the rectum were formed in 3 (14.3%) patients, which were successfully eliminated by various surgical methods 6 months after the main interventions.

CONCLUSIONS

Acute necrotic paraproctitis is a severe, life-threatening disease and is accompanied by high mortality. The success of treatment largely depends on early diagnosis of the inflammatory process, the earliest possible emergency operations with sufficient necrectomy and adequate intensive care.

Most often, unsatisfactory treatment results are due to late appeal of patients for specialized medical care (81.7% of cases), as well as late diagnosis of the disease in non-specialized institutions. This leads to widespread damage to the pelvic cellular spaces and sphincter muscle fibers, which complicates radical intervention.

The results of the studies showed that timely and radical surgery, supplemented with antibacterial and detoxifying therapy, led to recovery.

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