

PREVENTION OF PURULENT COMPLICATIONS DURING ABDOMINAL SURGERY: STRATEGIES AND CLINICAL RESULTS

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Abdominal surgery is one of the most difficult and requires special attention in surgical practice. Purulent infections are one of the most serious and dangerous complications after such interventions, which can lead to sepsis, prolonged recovery of the patient, and even death. Prevention of these complications is crucial to improve clinical outcomes and improve patients' quality of life.

Purulent complications during operations on abdominal organs can develop due to various factors, including infection of the wound, impaired sterility during the intervention, insufficient purification of organs or tissues from microbial agents, and others. The main reasons include:

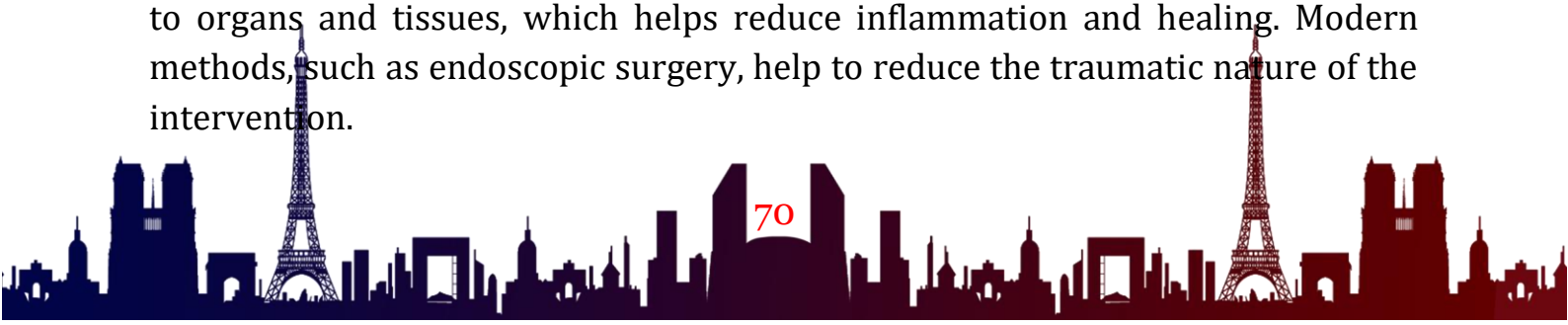
- Contamination during surgery, especially when manipulating the intestines, gallbladder or other hollow organs.
- Violations in postoperative care, such as insufficient wound treatment or a low level of antibacterial protection.
- Weakened immune system of the patient, especially in people with concomitant diseases or after severe operations.

To prevent these complications, an integrated approach is needed, including modern techniques both at the stage of patient preparation, as well as during the operation and postoperative care.

Adequate antibacterial therapy is one of the key prevention methods. Broad-spectrum antibiotics are prescribed 30-60 minutes before the start of surgery to prevent infection of the wound and abdominal organs. The choice of an antibiotic depends on the expected microflora that the surgeon will encounter during the operation. In the postoperative period, therapy can be continued depending on the clinical situation.

Surgical technique

- Minimization of tissue injury. It is important to avoid unnecessary damage to organs and tissues, which helps reduce inflammation and healing. Modern methods, such as endoscopic surgery, help to reduce the traumatic nature of the intervention.



- Sterility in the operating room. Strict adherence to asepsis and antisepsis in the operating room and the use of sterile instruments and materials significantly reduces the risk of infection.

Drainage of the abdominal cavity

In some cases, drains are installed to prevent infectious complications, which allow the removal of excess fluid from the abdominal cavity and reduce the likelihood of abscess formation. Drains help to reduce stagnation of blood and exudate, which is a good prevention of infection.

Postoperative care

- Thorough wound treatment. The postoperative wound should be treated regularly with antiseptics, and bandages should be changed on time to prevent infection.

- Early activation of the patient. Maintaining normal blood circulation and respiration after surgery, as well as early mobilization of the patient, help prevent congestion and infections.

The use of innovative technologies

Modern developments such as antiseptic films, antibacterial suture coatings and drainage systems with antiseptic effect significantly reduce the risk of postoperative purulent infections. These technologies not only provide protection from germs, but also accelerate healing.

The use of these preventive strategies allows for significant improvements in clinical outcomes. Modern approaches to the prevention of purulent complications reduce the frequency of infectious complications, shorten the period of hospitalization and reduce the need for repeated operations. For example, in clinics where comprehensive protocols of antibacterial prophylaxis and high-quality postoperative treatment have been implemented, the infection rate of postoperative wounds has decreased to 3-5%.

The use of drains and modern antiseptics can significantly reduce the likelihood of abscesses and peritonitis, which significantly improves the prognosis for the patient.

Conclusion: The prevention of purulent complications during abdominal surgery requires a systematic approach, including adequate antibacterial therapy, the use of modern surgical techniques, the installation of drains and high-quality postoperative care. The introduction of innovative methods and technologies into clinical practice significantly improves treatment outcomes and reduces risks for patients.

