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## Our Experience in Surgical Treatment of Intructed Inguinal Hernias

**Ibrokhimov M. Ye., Alimukhamedova N. A., Shukurov B. I.**  
Central Polyclinic of JSC “Uzbekistan metropolitan”, Tashkent,  
Republican Scientific Center for Emergency Medical Care, Tashkent

**Relevance.** Intructed inguinal hernias remain one of the most common causes of emergency surgical intervention in abdominal surgery. High risk of necrosis of the contents of the hernial sac, late treatment and often concomitant pathology necessitate timely diagnosis and selection of the optimal method of surgical treatment.

**Objective.** Evaluation of tactical and technical aspects of surgical treatment of intructed inguinal hernias.

**Material and methods.** The study included 124 patients with strangulated inguinal hernias, operated on at the Russian Scientific Center of Emergency Medical Care in the period from 2023 to 2024. There were 84 men (67.7%), 40 women (32.3%). The average age of patients was  $63.4 \pm 11.2$  years (from 24 to 91 years). The inguinal hernia was right-sided in 81 (65.3%) patients, left-sided in 43 (34.7%). The duration of hernia carriage varied from 2 months to 15 years and averaged  $4.8 \pm 3.6$  years. According to the anatomical form, oblique inguinal hernias predominated - 94 cases (75.8%), direct ones occurred in 26 (21.0%) patients, mixed forms - in 4 (3.2%). Results. In 89 cases (71.8%), the strangulated organs of the hernial contents were found to be viable and were returned to the abdominal cavity. In 35 patients (28.2%), resection of the strangulated necrotic tissue was performed: in 29 cases (82.9%), a strand of the greater omentum was resected, in 6 cases (17.1%) — resection of a portion of the small intestine with the formation of an end-to-end anastomosis. In the vast majority of cases (98 patients; 79.0%), surgery was performed through the inguinal approach. In 26 cases (21.0%), in the presence of peritoneal signs, combined or transabdominal approaches were used. Hernioplasty using a Lichtenstein polypropylene mesh was performed in 41 patients (33.0%) in the absence of necrosis of the strangulated organs and signs of infection in the surgical field. In the remaining cases, herniorrhaphy was performed with the refusal of implantation. Postoperative complications were registered in 17 patients (13.7%). Among them: seromas – in 7 patients, suppuration of the postoperative wound – in 6, intestinal anastomosis failure – in 1 case. Other complications were noted in 3 more patients, including intestinal paresis (2) and pulmonary embolism (1). 1 patient died from pulmonary embolism. Additional analysis revealed a number of factors reliably associated with complicated course of strangulated inguinal hernias. Thus, the time from the onset of strangulation to admission to hospital of more than 8 hours statistically significantly correlated with the presence of necrosis of the hernial contents ( $p < 0.01$ ), and age over 70 years was accompanied by a higher frequency of postoperative complications ( $p = 0.032$ ).

In patients with concomitant diabetes mellitus (n=18), purulent-inflammatory complications developed more often. Leukocytosis over  $12 \times 10^9 / l$  in combination with clinical signs of intestinal obstruction on admission increased the likelihood of bowel resection.

**Conclusions.** The tactics of treating strangulated inguinal hernias should be individualized taking into account the general condition of the patient, the nature of the strangulation and the presence of peritonitis. The use of synthetic implants is acceptable under aseptic conditions with viable contents. Combined approaches are advisable if peritonitis is suspected. Timely diagnosis and surgical intervention can significantly reduce the risk of postoperative complications and mortality. Identification of risk factors for complicated course at the prehospital and early hospital stage increases the accuracy of stratification and allows adequate preparation for possible resection or extended intervention.