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FEATURES OF THE COURSE OF HERNIOPLASTY IN PATIENTS WHO UNDERWENT SURGERY FOR INCARCERATED INGUINAL HERNIAS

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Widespread use of laparoscopic technology in planned herniosurgery is increasingly encouraging scientists and practitioners to effectively implement them in emergency surgery in patients with incarcerated inguinal hernias [1,2]. The study of the peculiarities of the wound reparative process creates the preconditions for the development of new synthetic implants, methods of operations and continues to search for the prevention of various complications [3,4].

The aim of the study was to investigate the peculiarities of changes in sonographic signs of uncomplicated hernioplasty in patients with incarcerated inguinal hernias depending on the type of surgery.

Materials and methods of research. The results of surgical treatment of 72 patients with incarcerated inguinal hernias Nyhus III A and III B, without signs of small bowel obstruction, were analyzed. Patients of the first group (28 patients) underwent autohernioplasty, and patients of the second group (44 patients) underwent Liechtenstein hernioplasty. Sonographic monitoring of the regional reparative process was performed on (linear sensor 7.5 MHz) 3, 7, 14 days postoperatively. The clinical-diagnostic algorithm included laboratory, instrumental research methods and statistical research methods.

Results of the research. The obtained results of comparative analysis of the reparative process in the area of hernioplasty revealed that on the 3rd day in patients of the first group there is an accumulation of fluid in the area of hernioplasty and is $52.32 \pm 1.72\%$, on the 7th day $34.18 \pm 2.44\%$ and 14 day $17.26 \pm 0.12\%$, with a thickness of 3 days 3.42 ± 0.26 mm, 7 days 2.21 ± 0.15 mm, 14 days 1.39 ± 0.96 mm. Whereas in patients of the second group in the area of hernioplasty, the accumulation of fluid around the mesh on the 3rd day was $76.53 \pm 3.15\%$, on the 7th day $63.52 \pm 3.12\%$ on the 14th day $24.35 \pm 1.16\%$, with the corresponding thickness was 4.16 ± 1.24 mm on the 3rd day, 3.73 ± 1.89 mm on the 7th day and 2.39 ± 0.19 mm on the 14th day.

In addition, subcutaneous tissue heterogeneity was observed in all patients of both groups during the first week, and in the study on day 14, the heterogeneity in patients of the first group was $47.12 \pm 25.11\%$, and in patients of the second group $41.34 \pm 3.26\%$.

Studies on the accumulation of fluid in the subcutaneous tissue revealed a more aggressive course of the reparative process in patients of the first group. The results obtained in patients of the first group revealed it on the 3rd day in $46.72 \pm 3.16\%$, on the 7th day in $55.94 \pm 3.17\%$, on the 14th day in $39.34 \pm 23.62\%$, and its thickness was on the 3rd day 10.93 ± 2.45 mm, on the 7th day 9.18 ± 1.23 mm, on the 14th day 7.82 ± 1.21 mm. Whereas in patients of the second group the accumulation of fluid in the subcutaneous tissue was observed in $39.76 \pm 2.62\%$, on the 7th day $44.49 \pm 3.11\%$, and on the 14th day $26.31 \pm 2.36\%$, and its thickness was 9.78 ± 2.16 mm on the 3rd day, 7.93 ± 1.15 mm on the 7th day, and 5.32 ± 0.94 mm on the 14th day.

Conclusion. 1. The course of the reparative process in the postoperative period in patients who underwent surgery for incarcerated inguinal hernias, when using autohernioplasty is accompanied by an increase in the volume of fluid accumulation in the subcutaneous tissue, whereas when using hernioplasty with mesh, the exudative component prevails in the implant's area.

2. The results of sonographic control over the area of hernioplasty without mesh and hernioplasty with mesh in patients with uncomplicated postoperative period should be taken into account for the prevention of wound complications.

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