SEROMAS AFTER THE SURGERY OF POSTOPERATIVE VENTRAL HERNIAS WITH THE USE OF MESH ENDOPROSTHESES

V. Dolishni** MD, **A. Davydov, D. Davydov
Dr. Paramonov's Clinic, Saratov, Russia

klinika@dr-paramonov.ru

Vladimir Dolishni
Deputy director general in medical work, professor, surgeon of the highest category

Alexander Davydov
surgeon

Dmitri Davydov
deputy head surgeon, doctor of the first category

The objective of the research is to study the occurrence of seroma formations depending on the method of the surgery of the anterior abdominal wall with the help of a mesh endoprosthesis in case of postoperative ventral hernias.

Materials and methods. The retrospective research was based on the method of the paired analysis of the surgery of the postoperative ventral hernias in „Dr. Paramonov's Clinic". During the analysis of 460 cases we chose 58 women at the age of 40 to 60 years. The first group (n=24) was composed by patients who had an „on lay" operation, 2 (n=24) had an „in lay" surgery. Polypropylene endoprostheses were used in all cases.

Criteria of inclusion: a planned surgical procedure; the size of the hernia from 100 to 200 cm^2; tension hernia repair.

Criteria of exclusion: infectious complications in the postoperative period; duration of the surgery more than 120 minutes due to the apparent adhesive process and the necessity of reconstructive invasions in the intestine.

The performance of the „in lay" surgery is possible if the preperitoneal cell is sufficiently apparent, if the peritoneum has cicatrical changes and apparent fusing, „on lay" surgery is carried out. The duration of the operation in the second group was longer by 16±11 min.

The frequency of drainage in the area where the mesh is situated was 100% in the first group and 16.6% (4 cases) in the second. Subcutaneous cellular tissue was drained in 100% of observation cases in the second group.

The duration of the drainage before implanting the endoprosthesis was 3 days in all the cases. The amount of the drainage was reduced from 86±42 ml to 30±12 ml in the first group and to 24±10 ml in the second. The duration of the drainage of the subcutaneous cellular tissue in the second group was 2 days.

The occurrence of seromas in the first group was 6 (25%). It required some additional evacuation of fluid along the drain channel, cutaneous sutures or by puncture, 4 to 12 times. The evacuation was performed once a day in the course of one week, and later according to indications.

There were three cases of seromas of the subcutaneous cellular tissue in the second group, which required evacuation from 2 to 4 times via the drain channel or cutaneous sutures. The area of placement of the endoprosthesis in the second group was monitored with the help of the ultrasound. The formation of seromas was registered in 3 (12.5%) cases. The preperitoneal cellular tissue was not drained in these observations. A puncture was performed in two cases when the estimated indicators of the cavity space showed more than 100 cm^3. 60 and 80 cm^3 of the serous fluid were obtained during the puncture; further punctures were not needed.

The research shows that the „in lay" surgery is more rarely accompanied by the formation of seromas. Most probably, the drainage of the fluid into the abdominal cavity takes place between the sutures of the peritoneum. Furthermore, we think that due to this type of surgery there is a closer contact of all layers of the prosthetic peritoneum, which is caused by the intraperitoneal pressure.