

INVESTIGATION OF THE QUALITY OF ENGRAFTMENT OF A NEW MESH PROSTHESIS WITH A COMPOSITE COATING IN ALLOGERNIOPLASTY**Sapaev Duschan Shukhratovich, Khayitboeva Komila Khujayazovna,****Yuldasheva Laylo Odilbek qizi****Urgench branch of Tashkent Medical Academy, Republic of Uzbekistan, Urgench****E.mail: duschanboy.sapaev@mail.ru**

Introduction. Over the past few decades, the concepts of the biological basis for the development of ventral hernias, surgical techniques and the use of biomaterials for abdominal wall plasty have significantly expanded. Biomaterials significantly improved the postoperative course with a significant reduction in the recurrence rate from 50% to less than 20%. However, there are different opinions in this regard. Despite the fact that it has been proven that prosthetic allogernioplasty led to a decrease in the frequency of relapses, the negative aspect of this type of surgery was a higher risk of developing wound complications compared with restoration with local tissues only.

The aim of the study is to improve the results of allogernioplasty in postoperative ventral hernias by developing a new domestic mesh implant.

Materials and methods of research. The clinical trials included 239 patients with postoperative ventral hernias. All patients were divided into two groups: the main group consisted of 97 patients who received a new domestic mesh implant during allogernioplasty. The comparison group included 142 patients in whom allogernioplasty was performed using traditional prostheses (Esfil, Prolen). In the comparison group, reconstructive plastic surgery with Onlay mesh fixation was performed in 85 patients, in the main group 48, reconstructive plastic surgery with Onlay mesh fixation was performed in 14 and 12 patients, respectively; corrective plastic surgery was performed in 43 and 37 patients.

The majority of patients (over 75%) were aged 31 to 60 years, while 66.9% of women were in the comparison group, 66% in the main group, 33.1% and 34% of men, respectively. According to the distribution of patients according to the Toskin and Zhebrovsky classification, 22.5% of patients in the comparison group and 18.6% in the main group were classified as average hernias, 50.7% and 51.5%, respectively, to extensive hernias, 26.8% and 29.9% of patients were giant.

Results. The first clinical trials of the new domestic mesh implant with a composite coating "Niprocel" showed full compliance with the results of the experimental study. According to the declared properties of the mesh prosthesis, an increase in the quality of its engraftment was noted with a decrease in the frequency of specific prosthetic complications. The hemostatic properties of the composite coating have been proven, which were manifested by leveling the risk of wound hematoma formation (2.1% in the comparison group). Another important property of the implant was a decrease in the reaction of surrounding tissues to a foreign body (mesh prosthesis) due to the composite coating, which, together with the hemostatic and, accordingly, lymphostatic effect, reduced the risk of exudative manifestations from the wound (2.8% in the comparison group) and the formation of seromas from 30.3% to 11.3%, as well as the development of inflammatory infiltration in the subcutaneous fat layer from 10.6% to 4.1%. These properties made it possible to reduce the overall incidence of local wound complications in the early period after allogernioplasty from 34.5% to 13.4% ($\chi^2=13.362$; Df=1;

$p < 0.001$). In turn, with regard to the clinical significance of serous accumulations in the wound, the developed domestic mesh implant allowed not only to reduce the risk of their formation, but also provided a reduction in the need for additional manipulations (in most cases repeated) for their evacuation from 16.2% to 3.1%, respectively, the frequency of seromas resolved independently was 14.1% in the group comparison and 8.2% in the main group, which together with the proportion of patients without seroma (69.7% and 88.7%) significantly improved the immediate results of allogernioplasty due to the use of the proposed mesh prosthesis ($\chi^2=13.445$; $Df=2$; $p=0.002$).

In reconstructive or reconstructive plastic surgery with fixation of the mesh prosthesis in the Onlay position, the use of the developed implant with a composite coating allowed to reduce the overall frequency of wound complications from 40.4% to 18.3% ($\chi^2=8,353$; $Df=1$; $p=0.004$), including leveling such manifestations as exudation from the wound (3.0% in the comparison group), hematomas, divergence of the wound edges and suppuration (2.0% each in the comparison group), as well as a decrease in the frequency of formation of wound infiltration from 13.1% to 5.0% and serous clusters from 36.4% to 16.7%, among which seromas requiring evacuation in the comparison group amounted to 20.2% and only 5.0% of cases in the main in the group, and in 16.2% and 11.7% of cases, this complication was resolved independently ($\chi^2=8,530$; $Df=2$; $p=0.015$).

Conclusion. An improved method of corrective allogernioplasty due to the use of a new domestic implant "Niprocel" and additional technical aspects to reduce the risk of developing a reaction to a foreign body, made it possible to reduce the incidence of prosthetic complications in the near future from 20.9% to 5.4% ($\chi^2= 4.042$; $Df=1$; $p=0.045$), in the structure of which a decrease was achieved the proportion of seroma formation increased from 16.3% to 2.7% ($\chi^2=4.073$; $Df=1$; $p=0.044$), while in the comparison group in 7.0% of cases it was necessary to evacuate these clusters, in the main group the volumes of seroma did not require additional manipulations.

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