

## The use of skin allografts in the treatment of burns

Evsiucova Maria<sup>1\*</sup>, Cirimpei Octavian<sup>1</sup>, Cociug Adrian<sup>2</sup>, Nacu Viorel<sup>2</sup>

<sup>1</sup> Orthopedics and Traumatology Clinic *Vitalie Betisor*, State University of Medicine and Pharmacy *Nicolae Testemitanu*, Chisinau, Moldova.

<sup>2</sup> Human Tissue and Cell Bank, Chisinau, Republic of Moldova.

**Background.** Burn disease continues to attract the attention of pathophysiologists and clinicians, due to the high level of this pathology in the trauma structure, the severity of the medical and social consequences. The total number of burns registered in the Republic of Moldova is 3,000-3,500 per year. The general lethality is 6.5-8%, and in STI 17.8-25%.

**Materials and methods.** A retrospective study was conducted, based on the medical documentation of patients treated with skin allografts in the period 2019-2022. Data processing was carried out using Microsoft EXCEL 2010 (Analysis ToolPak), Xlstat 2018 and SPSS 11.0 for Windows, statistical methods and quantitative and qualitative data analysis. The study of the observation sheets was carried out in accordance with the requirements of the Research Ethics Committee of the *Nicolae Testemitanu* State University of Medicine and Pharmacy.

**Results.** The analysis of the group of patients included in the present study demonstrates a significantly higher incidence of severe burns among male patients and those aged between 40-49 years; 40.68% of patients were aged  $\geq 60$  years; according to the area of residence, we obtained 2.82% more patients from the rural area. In our study, grafting with preserved allografts was performed in 50 patients (group 1) during the years 2019-2022, patients with severe burns. Group 2 (control) did not receive allograft treatment of the burn and different methods of repair of the tissue defect were used. During the study we established that the duration of hospitalization and discharge of group 1 that benefited from allografts was shorter compared to control group 2, they also presented a more significant rate of postoperative complications.

**Conclusions.** Early excision and grafting of post-burn lesions has probably been the single greatest development in the treatment of severely burned patients in the last two decades, leading to a significant decrease in basal energy requirements and thus a subsequent improvement in the mortality rate.

**Keywords:** deep burns, allografts, surgical burn treatment.