**A.O.Makarchuk**

Zaporizhzhia State Medical University

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# THE DYNAMICS OF MORPHOLOGICAL CHANGES OF FACIAL SKIN IN PATIENTS WITH MALASSEZIASIS AT STAGES OF ANTIMYCOTIC AND ANTI-AGING THERAPY

**Key words**: skin, involutive changes, malasseziasis, ultrastructure.

**ABSTRACT. Background.** Many questions about the dependence of pathological changes of the skin to age-appropriate background malassezia destruction require clarification and further advance, as well as the dependence of the effectiveness of anti-aging interventions of antimycotic therapy. **Objective.** The purpose of this study was to determine the morphological changes of the skin in patients with malasseziasis on stages of antimitotic and anti-aging therapy. **Methods.** In 90 patients with involutive changes in facial skin, including 60 patients with malasseziasis, using electron microscopy carried determine the state of the skin. **Results.** Found that specific antifungal therapy for 1 month prior to surgical intervention in the face provides the normalization of skin structures damaged by keratomicosis, through emulation of mitotic activity of keratinocytes in germinal zone and optimizing epidermal differentiation restricted vacuolization of epithelial cells. Prolongation of local and systemic antimycotic therapy within 1 month after the intervention was accompanied by reduction of involutive morphological changes of the skin and prevents development of malasseziasis recurrent for 1 year. **Conclusion.** Specific antimycotic therapy in patients with malasseziasis is essential for achieving high performance anti-aging activities.

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**✉ makarchuk.art@gmail.com**

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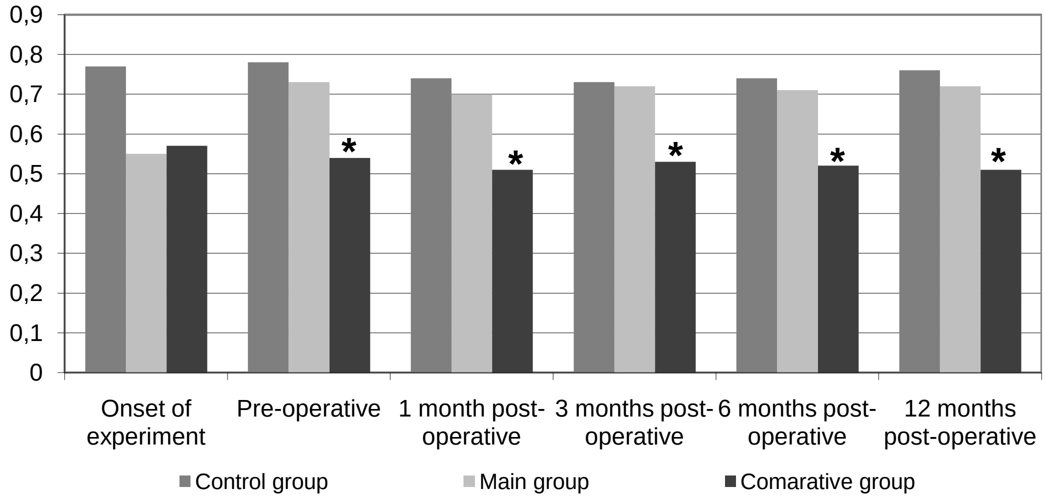


Fig. 1. Dynamics of changes in the numerical density of keratinocyte nuclei in germinative layers of epidermis ($10^3$×мм$^{-2}$) in patients aged 33-40 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

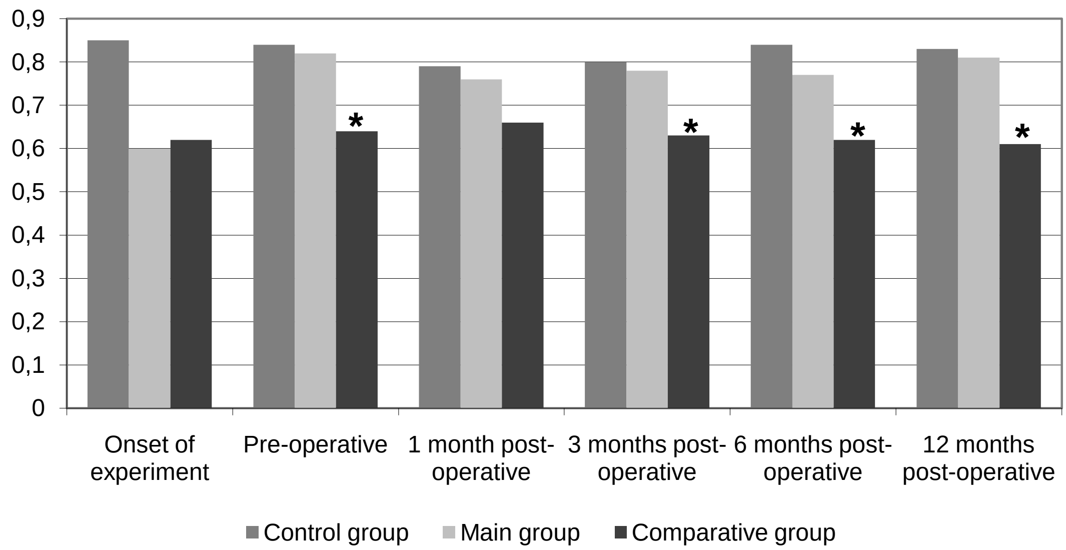


Fig. 2. Dynamics of changes in the numerical density of keratinocyte nuclei in germinative layers of epidermis ($10^3$×мм$^{-2}$) in patients aged 41-50 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

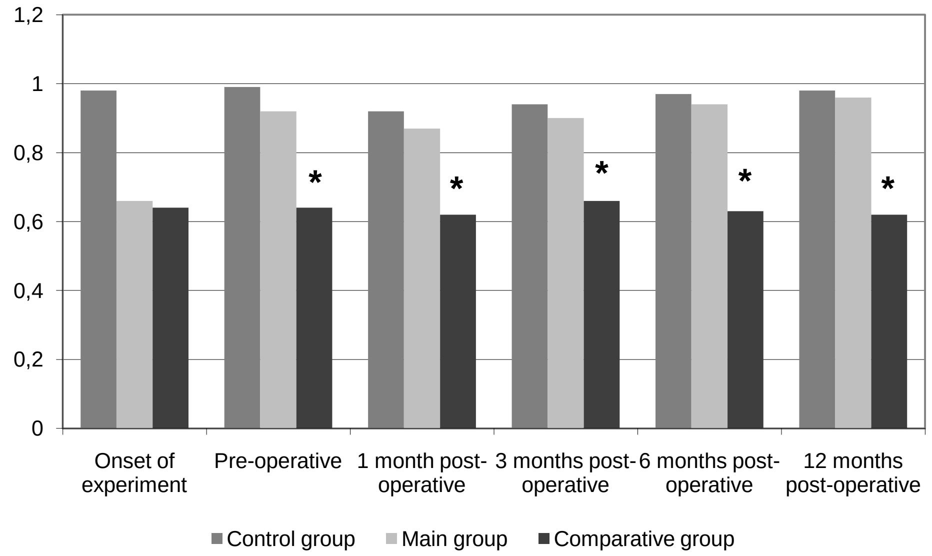


Fig. 3. Dynamics of changes in the numerical density of keratinocyte nuclei in germinative layers of epidermis ($10^3$×мм$^{-2}$) in patients aged 51-57 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

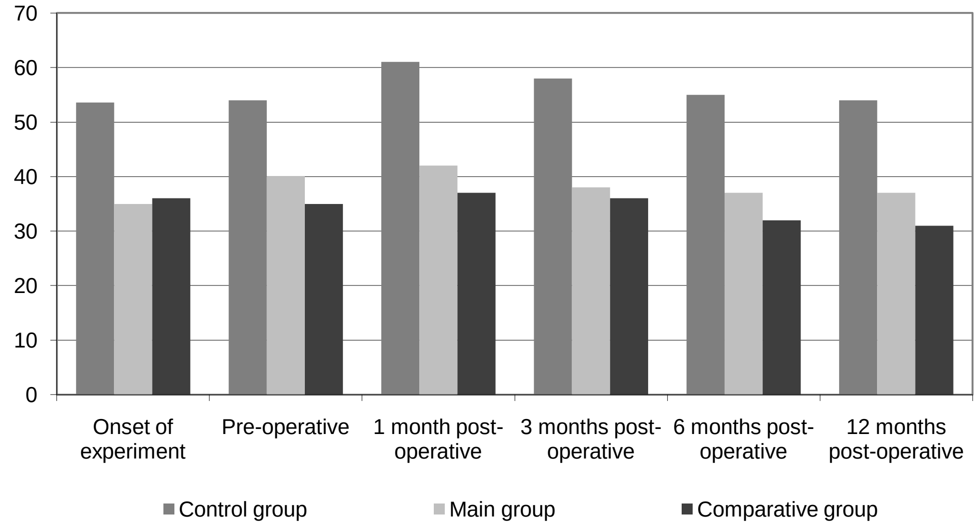


Fig. 4. Dynamics of changes in the general thickness of basal, spinous and granular layers of epidermis (μm) in patients aged 33-40 years.

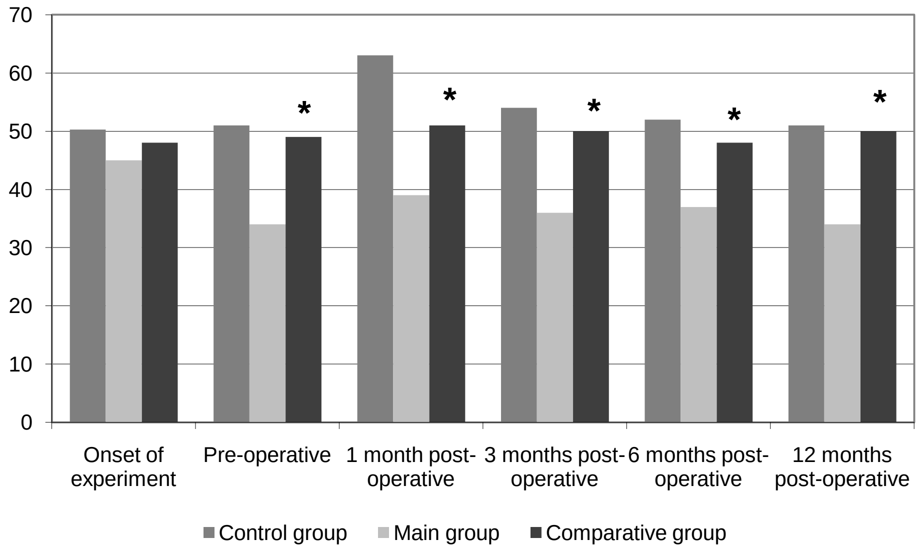


Fig. 5. Dynamics of changes in the general thickness of basal, spinous and granular layers of epidermis (µm) in patients aged 41-50 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

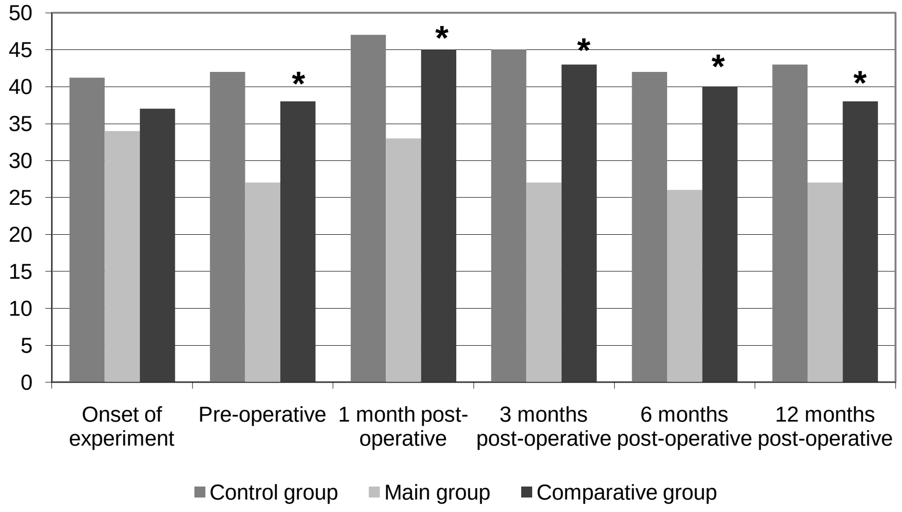


Fig. 6. Dynamics of changes in the general thickness of basal, spinous and granular layers of epidermis (µm) in patients aged 51-57 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group. ($p<0,05$).

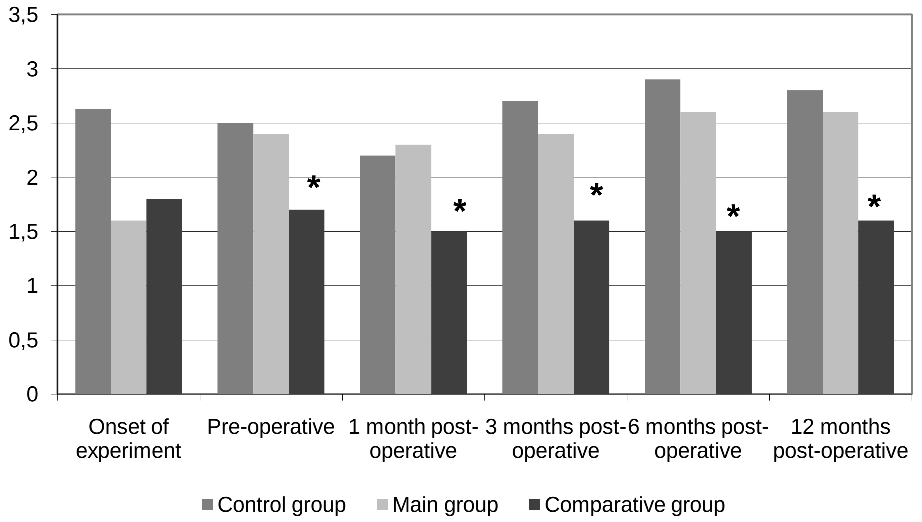


Fig. 7. Dynamics of changes in the keratinocyte mitotic index (%) in patients aged 33-40 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

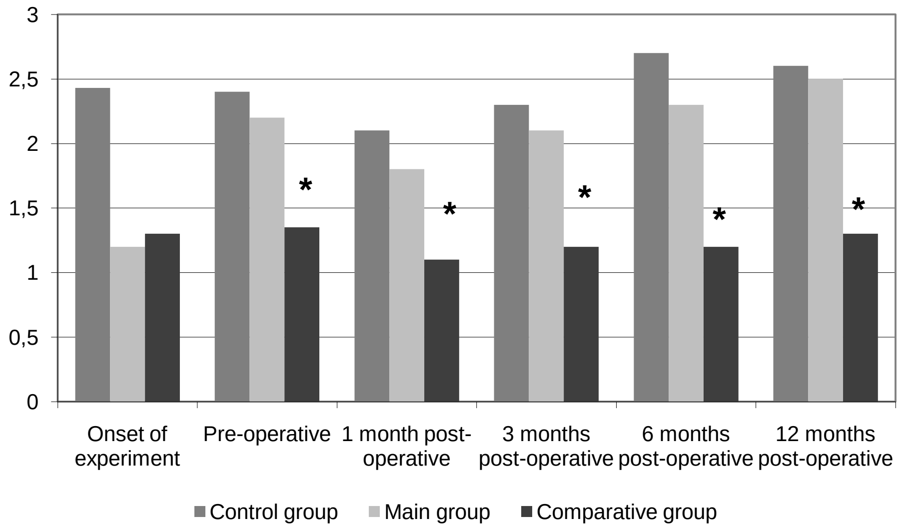


Fig. 8. Dynamics of changes in the keratinocyte mitotic index (%) in patients aged 41-50 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

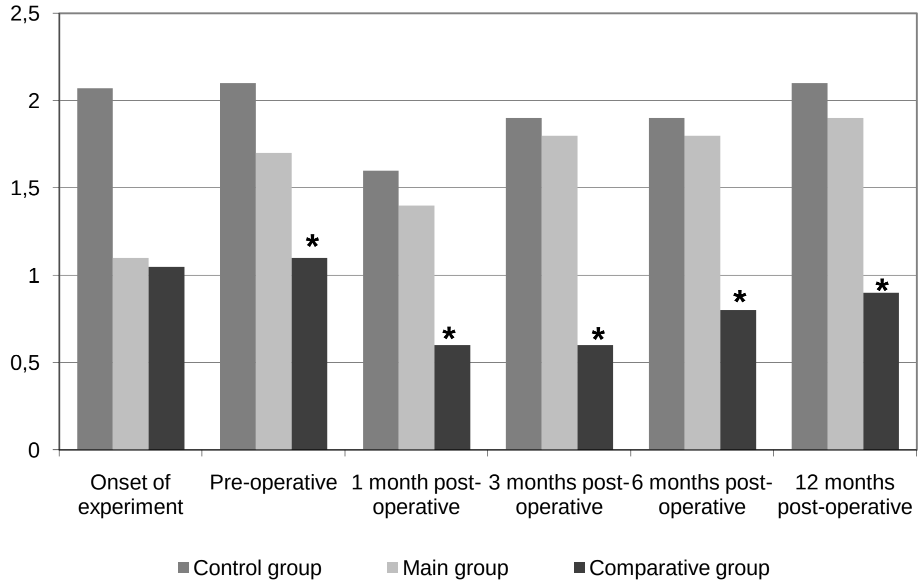


Fig. 9. Dynamics of changes in the keratinocyte mitotic index (%) in patients aged 51-57 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

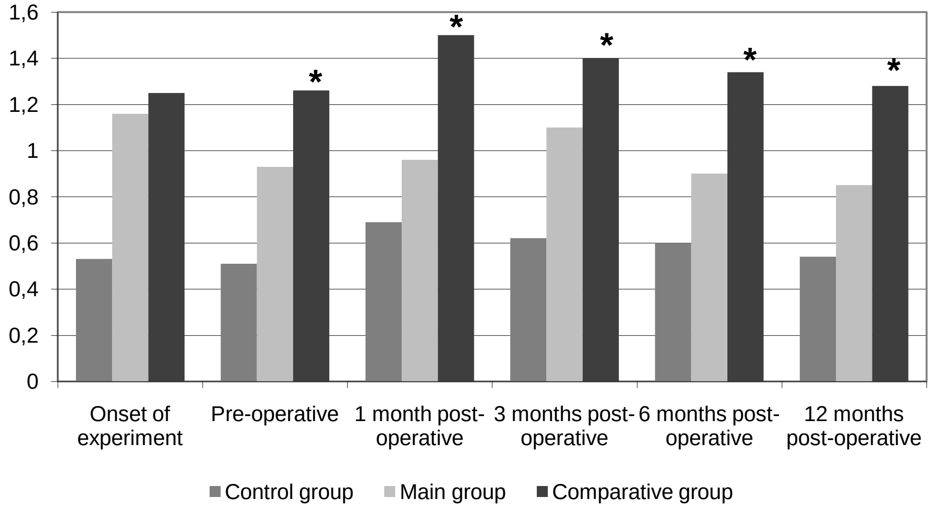


Fig. 10. Dynamics of changes in the keratinocyte vacuolation grade (%) in the germinative zone of patients aged 33-40 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

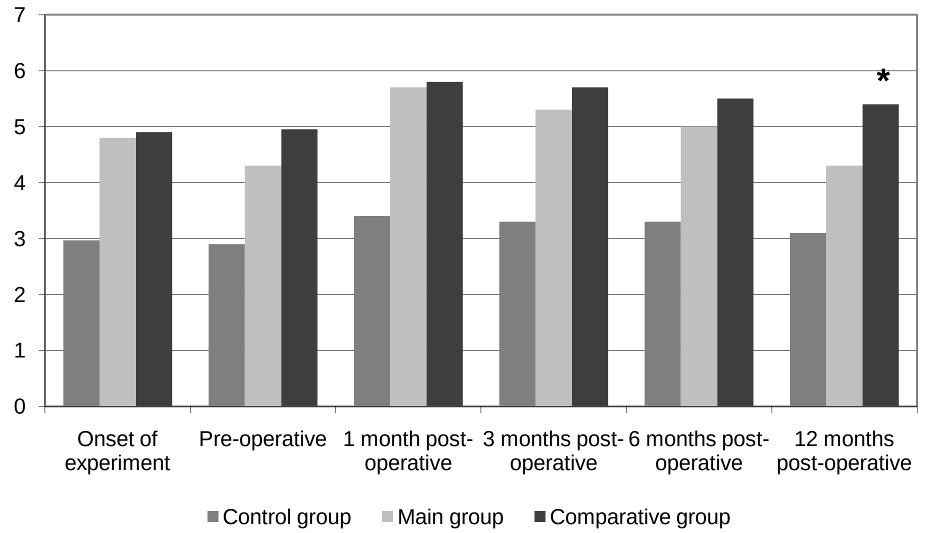


Fig. 11. Dynamics of changes in the keratinocyte vacuolation grade (%) in the germinative zone of patients aged 41-50 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

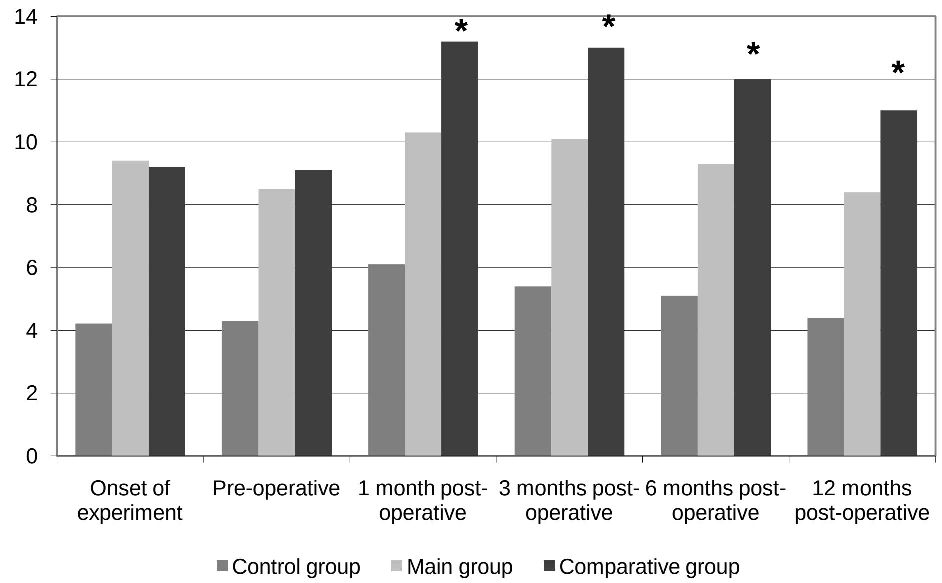


Fig. 12. Dynamics of changes in the keratinocyte vacuolation grade (%) in the germinative zone of patients aged 51-57 years. Note: Asterisk (*) indicates the reliable difference between the main clinical group and the comparative group.

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