PROGNOSTICATING IMMUNOLOGICAL RESULTS IN PATIENTS WITH POST-BURN AUTOTRANSPLANTATION

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Background: Deep burn injuries are characterized by the induction of a severe systemic inflammatory response syndrome (SIRS) and prolonged immunodepression, which directly influence the outcomes of subsequent autodermoplasty. Currently, the development of reliable immunological and hormonal criteria capable of predicting the success of autograft engraftment at the preoperative stage remains a critical challenge in combustiology.

Aim: This study aims to identify the prognostic factors determining burn injury outcomes and the risk of autograft rejection (autolysis) based on clinical and laboratory examinations, specifically focusing on cytokine profiles and cortisol levels.

Methods: The study object includes 48 patients with deep burn injuries treated at the Samarkand branch of RSCUMA. Participants are divided into two groups based on autotransplantation outcomes: Group I (positive outcome, n=25) and Group II (negative outcome/autolysis, n=23). Inclusion criteria: age 18–65 years; exclusion criteria: diabetes mellitus, malignant neoplasms, and BMI ≥ 40. Preoperative serum levels of pro-inflammatory and anti-

inflammatory cytokines (IL-10, IL-6, MMP-9,) and cortisol will be analyzed using ELISA methods (Vector-Best, Russia).

Expected Results: The research expects to identify specific cut-off values for cortisol and key cytokines that correlate with graft failure. It is anticipated that a preoperative imbalance in the reparative capacity of the body, indicated by high pro-inflammatory cytokine activity and cortisol fluctuations, will serve as a primary predictor of autolysis. These markers will allow for the expansion of clinical laboratory screening protocols to optimize surgical timing.

Conclusion: Establishing reliable diagnostic criteria through complex clinico-immunological assessment will enable a unified approach to the immunodiagnostics of burn victims. The implementation of these prognostic models into clinical practice is expected to improve the effectiveness of surgical interventions and optimize individualized therapy regimens.

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