

## Correlations between initial human-beta-defensin-1 level and quality of life of patients during anti-tuberculosis therapy

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**Background.** The quality of life of patients with tuberculosis is an important component of the treatment effectiveness.

**Objective.** To find the correlations between initial human-beta-defensin-1 (HBD-1) level and quality of life of patients during anti-tuberculosis therapy.

**Materials and methods.** 100 patients with pulmonary tuberculosis were included in the study. The patients were diagnosed, treated and monitored according to current state protocols and World Health Organization guidelines. Additionally, the level of HBD-1 was measured in blood plasma by ELISA at the treatment onset. The patients were interviewed using SF-25 scale at the treatment onset, after 30 days and after 60 days. The parameters of physical

functioning, role-physical functioning, bodily pain, general health, vitality, social functioning, emotional-role functioning, and mental health were assessed.

**Results.** We found correlations between the initial level of HBD-1 and quality of life parameters: physical functioning (-0.43), role-physical functioning (-0.34), bodily pain (-0.23), general health (-0.42), social functioning (-0.42), emotional-role functioning (-0.36);  $p < 0.05$ . The obtained negative correlations indicate that a high initial level of HBD-1 is a predictor of lower quality of life during treatment.

**Conclusions.** An increase in the level of HBD-1 at the treatment onset can be considered a predictor of a decrease in the quality of life during treatment in patients with pulmonary tuberculosis.