

**Abstract N°: 1162****The relationship between carbohydrate metabolism and superficial candidiasis**

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Introduction & Objectives: Purpose of the study: to investigate the pattern of the relationship between carbohydrate metabolism and superficial candidiasis for the further development of rational therapeutic approaches for the treatment of candidiasis associated with initial disorders of carbohydrate metabolism.

Materials & Methods: In order to determine the indicators of carbohydrate metabolism and their influence on the course of superficial candidiasis, 97 patients with different severity of this disease were examined. The study of carbohydrate metabolism included the determination of fasting blood sugar level to detect the overt diabetes and glucose tolerance test (with the load of 75 g of glucose). The impaired glucose tolerance was detected in 36 patients, so their levels of glycosylated hemoglobin and fructosamine were additionally determined. HbA1c level was determined in whole blood by ion exchange chromatography. Fructosamine was measured by kinetic colorimetric method in both serum and plasma. Blood sampling was performed on an empty stomach from the cubital vein. The studies were carried out immediately after sampling. The Sentinel CH test system from Intero (Italy) and a spectrophotometer with a 405-425 nm filter were used for the research.

Results: The research showed that in the group of patients with candidal lesions, there is a direct dependence of HbA1c and fructosamine on the severity of the disease. In patients with minimal and moderate candidal lesions, an increase in HbA1c and fructosamine indicators was observed compared to similar indicators in the control group by 1.54 and 1.21 times respectively. In patients with significant candidal lesions and relapses, the concentration of HbA1c increased by 2.59 times and of fructosamine by 2.26 times in relation to the indicators of the control group.

Conclusion: As shown by the results of our research, we have proven a direct correlation between the severity of candidiasis and the levels of glycosylated hemoglobin and fructosamine. The identification of correlation patterns is an important element in the development of a multimodal pathogenetically justified treatment of patients with candidal lesions of the skin and mucous membranes. Keywords: Candida, superficial candidiasis, carbohydrate metabolism

