Qualitative and the Quantitative Malnutrition, As A Risk Factor for Large Amputation after Revascularization in Patients with Critical Limb Ischemia

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Objective: Patients with critical limb ischemia are exposed to qualitative and quantitative malnutrition as a result of anorexia caused by chronic pain, insomnia, overuse of analgesics and limitation of mobility. Furthermore, malnutrition is a well-known factor that causes coagulation disorders, immunosuppression, and directly adversely affects the wound healing process.

The aim of this study was to assess the influence of qualitative and quantitative malnutrition on the results of revascularization procedures as frequency of large amputations in patients with critical lower limb ischemia.

Methods: The study analyzed the results of laboratory tests: the level of total protein, albumin, hemoglobin, iron, vitamins (A; E and B12) and biometrics (BMI, MNA scale) in 254 patients between 50-85 years of age consecutively admitted to the hospital due to critical lower limb ischemia and qualified for surgical revascularization. The results of the analysis of the nutritional status of the patients with the results of surgical treatment were summarized. The endpoint of the study was large limb amputation within 30 days after the vascular intervention.

Results: Totally 165 (64,96%) patients with critical lower limb ischemia had symptoms of quantitative and qualitative malnutrition of which 74 (44,84%) patients were extremely undernourished, both qualitatively and quantitatively. In the group of patients with extreme malnutrition, there were 24 (32,43%) large amputations, in the group of patients with moderate malnutrition9(9,8%) and in control group of patients without malnutrition 3(3,3)%.

Conclusion: Among the patient population, extreme malnutrition was an important predictor of the loss of the ischemic lower limb even after revascularization.

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