THE INFLUENCE OF MALNUTRITION-INFLAMMATION COMPLEX SYNDROME ON LEPTIN LEVEL IN CHRONIC HEMODIALYSIS PATIENTS

Ivona Risovic1, Vlastimir Vlatkovic2, Snjezana Popovic Pajicic2, Gabriela Malasevic2
1Nephrology, University Clinical Centre Ljubljana, Ljubljana, Slovenia 2Nephrology department, Konstantopouleio General Hospital of Athens, Nea Ionia, Greece

INTRODUCTION AND AIMS: The malnutrition and inflammation complex syndrome (MICS) play important role in morbidity and mortality in chronic hemodialysis patients. Leptin is a protein hormone, which primary role is in the regulation of food intake and energy consumption. The role of leptin in MICS in hemodialysis patients has not yet been well defined. The aim of the study was to examine the impact of MICS on the leptin level and the predictive value of leptin for MICS

METHODS: The cross section study included 93 subjects who were divided into two groups: subjects with MICS (n = 16) and subjects without MICS (n = 77). The presence of MICS was determined using malnutrition inflammatory scores (MIS), and cut-off values for MICS were ≤7.

RESULTS: MICS subjects had significantly lower leptin level (6.59 ± 11.90 vs 37.6 ± 16.35, p < 0.001), they were the oldest and longer period of treatment for hemodialysis. The predictive value of leptin for MICS was ≤ 6.5 ng / ml. In the MICS prediction, leptin showed the same specificity as a MIS (0.46 vs 0.46) and almost the same sensitivity (0.89 vs. 0.90). ROC curve for leptin was 0.77, p < 0.03 vs. MIS 0.799, p < 0.001.

CONCLUSIONS: In our study, the presence of MICS has influence on leptin level.