CLINICAL AND METABOLIC RISK EVALUATION OF LEPTIN AND INSULIN RESISTANCE CHANGES IN PATIENTS WITH CHOLELITHIASIS/H3

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Introduction: We aimed to evaluate the association between insulin resistance, lipoproteins, and leptin levels in patients with cholelithiasis. Material and Methods: Study group included 55 women with mean age of 51±14 (68.8%) and 25 males (31.3%) with cholelithiasis. Twenty-five women with mean age of 51±12 (62.5%) and 15 men (37.5%) were enrolled as a control group. Serum leptin levels were measured by enzyme immunoassay. HOMA-IR was determined by using fasting blood glucose and insulin levels. Results: Insulin, total cholesterol (TC), HOMA-IR (p<0.01) and leptin (p<0.001) values were statistically higher in subjects with cholelithiasis compared to the control group. In patients with a HOMA-IR2.2, age, body mass index (BMI), glucose, insulin, triglycerides (TG), TC and leptin levels were higher than patients with a HOMA-IR2.2. In patients with glucose levels100 mg/dl, mean BMI and HOMA-IR, insulin, TG, TC and leptin levels were significantly higher than in patients with glucose levels100 mg/dl. In patients with TG levels150 mg/dl, mean age, BMI, glucose, insulin, TC, leptin and HOMA-IR were significantly higher than in patients with TG levels150 mg/dl. In patients with BMI25, mean age, glucose, insulin, TC, leptin, HOMA-IR were significantly higher in patients with BMI25. In the cholelithiasis group, there was a positive correlation between leptin levels and age, BMI, glucose, insulin, TG, TC, LDL-C and HOMA-IR. Conclusions: We found a positive association between increased leptin levels and abnormal lipoprotein metabolism in cholelithiasis. Increased BMI may underlie several metabolic diseases mainly diabetes mellitus and premature atherosclerosis in cholelithiasis.