

# DYSLIPIDEMIA IN PATIENTS WITH OSTEOARTHRITIS AND TYPE 2 DIABETES MELLITUS

Oliinyk M.A.

*Kharkiv National Medical University*

**Purposes:** to investigate influence of dyslipidemia to articular syndrome and glycosylated hemoglobin (HbA1c) in patients with osteoarthritis (OA) and type 2 diabetes mellitus (T2DM).

**Methods.** We examined 60 patients with knee OA and T2DM (28 males, age  $58.7 \pm 4.7$  years). Baseline characteristics of patients included history of OA ( $6.2 \pm 2.1$  years), T2DM ( $7.3 \pm 2.7$  years). All patients were divided into 2 groups: 1<sup>st</sup> group – patients with OA, T2DM and concomitant dyslipidemia (n=31), 2<sup>nd</sup> group (n=29) – patients with OA, T2DM and without concomitant dyslipidemia. The levels of total cholesterol (TC), low-density lipoprotein cholesterol (LDL), very LDL (VLDL), triglycerides (TG), high-density lipoprotein cholesterol (HDL), of HbA1c, C-reactive protein were determined. All patients were made X-ray examination of knees.

**Results.** Among the 1<sup>st</sup> group of patients the level of HbA1c was significantly correlated with TC level ( $r=0.58$ ;  $p<0.05$ ), LDL ( $r=0.48$ ;  $p<0.05$ ), TG ( $r=0.42$ ;  $p<0.05$ ), HDL ( $r=-0.46$ ;  $p<0.05$ ). The study found that the level of C-reactive protein was significantly higher in patients with concomitant dyslipidemia ( $p<0.05$ ). The degree of radiographic changes was significantly more increased in patients in the 1<sup>st</sup> group. We also noticed the severity of radiographic changes were significantly correlated with duration of T2DM ( $r=0.41$ ,  $p<0.05$ ).

**Conclusions:** Dyslipidemia can negatively affect the severity of articular syndrome and HbA1c in patients with OA and T2DM. We recommend to determine the level of lipid metabolism in patients with OA and T2DM for prescribing adequate lipid-lowering therapy that can minimize the risk of possible complications.