# RELATIONSHIP BETWEEN ADIPONECTIN AND ANTHROPOMETRIC PARAMETERS, INSULIN RESISTANCE AND TRANSAMINASE LEVELS IN PATIENTS WITH NONALCOHOLIC FATTY LIVER DISEASE AND TYPE 2 DIABETES

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Thebasisofthepathogenesisofnonalcoholicfattyliverdisease (NAFLD) isinsulinresistance (IR) whichappearson thebackgroundofabdominalobesity (AO)which, inturn, is a keyfactorintheemergenceofanimbalancebetweenadipocytokinesentailing a violationoflipidandcarbohydratemetabolism, whichultimatelyleadstothedamageofthelivercells, thedevelopmentofinflammation, fibrosisandapoptosis.

**Thegoal**- tostudyfeaturesofchangesinthelevelofadiponectin (AN), dependingonthefunctionoftheliverand IR indexinpatientswithNAFLD anddiabetesmellitustype 2 and AO.

**Materialsandmethods.** 25 patients (10 menand 15 women) with NAFLD andtype 2 diabetes (HbA1c <7,5%). Clinicalexaminationincludedassessmentofanthropometricparameters (bodymassindex (BMI) andwaist circumference (WC)), functionoftheliver (ALT, AST) andindex HOMA-IR.

**TheResults.**Thechangesin BMI wereobservedin 94.5% ofpatients, includingobesity 1st degree - in 54.6%, 2nd degree - in 31.4% and 4.6% - obesity 3rd degree. AN levelwasreducedcomparedtocontrol (8,7 ± 2,4 ng/mlvs. 15,4 ± 2,1 ng/ml, p <0.05)andcorrelatedwiththedegreeofobesity - 6,5 ± 2,1 ng/mLinpatientswithgrade 3 obesity (p <0.05). Therewas a negativerelationshipbetweenthelevelofANand BMI (r = -0,36; p <0.01), WC (r = -0,34; p <0.05).ThelevelofAN significantlydecreasedwithincreasinglevelsof ALT (r = -0.44, p <0.001) and AST (r = -0,46; p <0.001). Aninverserelationshipbetweenthelevelof AN andtheindex HOMA-IR wasdetermined(r = -0,46; p <0.001).

**Conclusions.**Hypoadiponektinemiainpatientswith NAFLD andtype2 diabetesisassociatedwith AO, thedeteriorationoftheliverfunctionandprogressionof IRthatcontributestothefurtherdevelopmentofmetabolicabnormalitiesintheliver.