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HEROIN DEPENDENTS ARE INSULIN RESISTANT

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Background. Fasting insulin levels, HOMA-IR and HOMA-%B are precise methods for determining insulin resistance and can be used in assessing the insulin sensitivity in heroin dependents (HD). Heroin dependents are expected to be insulin resistant. To determine the heroin influence on insulin sensitivity in male heroin dependents compared to control healthy male (K).

Materials. Fasting insulin levels (I), HOMA-IR, HOMA-%B, fasting glucose levels (gl) and C-peptide (C) were determined in both groups, group K with mean age (28.1±4.2 yr) and mean BMI (22.8±2.5 kg/m2), not different compared to group HD with mean age (27.9±5.4 yr) and BMI (22.3±3.1 kg/m2),which were HCV negative.

Methods. I and C were determined with hemiluminiscent method on Immunology Analyzer Immulate 2000, HOMA-IR was calculated [(FIxFgl)/22.5], as well as HOMA-%B [(20xFI)/(Fgl-3.5)].

Results. I values in HD group were 15.24±27.6 IU/L, significantly higher compared to K (4.58±3.23) ($p<0.035$). Glucose levels were not significantly different between HD (5.0±0.83 mmol/l) and K (4.93±0.45 mmol/l) ($p>0.05$). HOMA-IR in HD (2.52±3.29) and HOMA-%B (111.56±58.14) were significantly higher compared to the correspondent values in K (1.02±0.8) ($p<0.016$) and (68.83±46.57) ($p<0.05$). I values correlated highly significantly positively with HOMA-IR, HOMA-%B and C-peptide ($p<0.0001$) in HD.

Conclusions. HD were characterized with significantly higher I, HOMA-IR, HOMA-%B values, which correlated highly significantly between themselves, confirming insulin resistance in HD.