

Title: The Impact of Obesity on State of Insulin Resistant in Non-Diabetic Subjects.

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Abstract:

Background: The obesity might induce the developing of insulin resistance. Factors independently associated with preservation of C-peptide level were analyzed.

Methods: 50 obese patients (age 16–65 years) with Body mass index (BMI) more than 30, and normal glycosylated hemoglobin (HbA1c) and blood sugar, the target group was compared with non-obese, non-diabetic subjects by evaluation of C-peptide (C-P), serum insulin (SI) and serum cortisol (SCo).

Results: Patients with high BMI were assigned with high C-P levels (≥ 1.8 ng/mL; $p < 0.05$ vs control) with high SL levels (≥ 21.7 ng/mL) and high SCo levels (≥ 12.3 ng/mL) .

Conclusion: Obese subjects had significantly increasing in C-P with non-significant increase in SI levels and SCo levels in comparison to control subjects. However, we found evidence that obesity can accelerate DM and metabolic disease.

Keywords: diabetes mellitus, C-peptide, Body mass index, Obesity, Serum Insulin, Serum Leptin, Serum Cortisol