



Demographic and Clinical Predictors for Insulin Resistance in Type 2 Diabetes Mellitus Patients During Severe/Acute Hyperglycemia Phase

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SUMMARY. This study assesses and relates demographic and clinical factors that probably contribute to increased resistance to insulin in type 2 diabetes mellitus (T2DM) patients during severe/acute hyperglycemia phase. The prospective cohort study involved 156 T2DM patients with severe or acute hyperglycemia that were treated with insulin therapy. The insulin resistance status was determined using the Homeostatic Model Assessment for Insulin Resistance (HOMA-IR) index. The predictor models were developed using binary logistic regression analysis. Demographic factors (age, gender, race, waist circumference and body mass index) were found to be insignificant predictors for worsening of insulin resistance during the severe or acute hyperglycemia phase ($X^2 = 8.33$, $p = 0.304$). Drugs like loop diuretics OR = 3.13 (95 % CI: 1.5-6.7; $p = 0.003$) and macrolides OR = 3.07 (95 % CI: 1.4-7.0; $p = 0.007$) may indirectly predict increasing insulin resistance in these patients. Clinical components prevail in strengthening the insulin resistance during the severe or acute hyperglycemic period.

KEY WORDS: Type 2 diabetes mellitus, Insulin resistance, Severe/acute hyperglycemia.

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