

## Glucose Metabolism in Hypertensive Patients in Relation to Smoking

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**Aim:**Smoking effect in hypertensive patients in proportion to glucose metabolism imbalance. It is reminded that smoking is correlated to insulin resistance increase in patients with Diabetes Mellitus type II, elevating glycosylated hemoglobin( HbA1c) level.

**Material-Methods:**The study involved 135 subjects (69 smokers, 66 non smokers) with essential hypertension ,without further complications and median age 56±9,7 years .They went under a complete clinical ,biochemical and imaging study.Fasting plasma glucose level, HbA1c level and an observed plasma glucose tolerance test (using a glucose load containing the equivalent of 75 mg of anhydrous glucose dissolved in water) were registered. Their smoking habit was also recorded.

### Results:

| Glucose metabolism         | smokers | Median HbA1c | Non smokers | Median HbA1c |
|----------------------------|---------|--------------|-------------|--------------|
| euglycemic                 | 29      | 5,4          | 20          | 5,3          |
| Impaired fasting glucose   | 14      | 6,9          | 16          | 7,0          |
| Impaired glucose tolerance | 13      | 6,8          | 14          | 6,9          |
| Diabetes mellitus type II  | 13      | 7,71         | 16          | 7,08         |

**Conclusions:** As it appears, smoking seems not to affect HbA1c level in modest imbalances of glucose metabolism (in impaired fasting glucose and impaired glucose tolerance ). On the contrary, smoking effect is quite significant ( $p<0,05$ ) at HbA1c level in hypertensive patients with DM type II. Consequently, smoking habit of these kind of patients should always be taken under consideration.