

**ASSESSMENT OF PULMONARY FUNCTION IN CHILDREN WITH INSULIN
DEPENDENT DIABETES MELLITUS**

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The aim of the study was to assess the pulmonary function of diabetic children and compare measurements to those of healthy controls.

PATIENTS AND METHODS: 26 patients with insulin dependent diabetes mellitus (I.D.D.M.) with average 5-year duration were evaluated. Mean age of the patients was 12.91±4.53 yrs. Patients were divided into groups A (HbA1C <8%, n=14) and B (HbA1C >8%, n=12). Control group comprised 52 healthy children of the same age range. Spirometry was used to measure FVC, FEV1, FEV1/FVC% ratio and PEF. We used the ratio of each measured value to the predicted one (percentage of the predicted) for the age, height and weight of the patient for comparison purposes.

RESULTS: We found: 1. Insignificant differences between patient and control groups in all pulmonary function parameters (FVC: 87.57% group A and 91.33 % group B versus 91.63% of control, FEV1: 85.28% A and 92.83% B v. 90.27% of control, FEV1/FVC%: 98% A and 102.66% B v. 99.09%, PEF: 89.28% A and 99% B v. 89.90% control.) 2. Insignificant differences among group A and B patients. 3. Strong negative correlation between PEF and glycosylated Hb values of group B patients ($r=-0.911$, $p<0.001$).

CONCLUSION: Pulmonary function is not compromised in diabetic patients, but compromised glycemic control (higher glycosylated Hb values) are accompanied by lower PEF levels.

