Pulmonary Functions in Punjabi Type 2 Diabetics: Based on Chronicity of Disease

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Abstract

Aim: To observe pulmonary functions in two groups of Punjabi population, group 1 having type-2 diabetes between 5 to 10 years and group 2 having type-2 diabetes for more than 10 years.

Method: Fifty type-2 diabetics (between 5 to 10 years) and fifty type-2 diabetics (more than 10 years) in the age range of 40-60 years participated in the study. The spirometry was performed to observe forced vital capacity (FVC), Forced Expiratory volume in 1 second (FEV1), (FEV1/FVC), peak expiratory flow rate (PEFR) and Forced expiration time (FET).

Results: The mean age, height, weight and BMI of type-2 diabetics (between 5 to 10 years) and type-2 diabetics (more than 10 years) was 49.60±5.08 years & 52.58±4.69 years, 172.16±5.72 cm & 172.08±6.30 cm, 73.18±9.44 kg & 70.36±9.16 kg and 24.72±3.33 kg/m² & 23.74±2.68 kg/m². The mean FVC, FEV1, FEV1/FVC, PEF and FET of type-2 diabetics (between 5 to 10 years) and type-2 diabetics (more than 10 years) was 3.84±.57 liters & 3.95±.59 liters, 3.35±.44 liters & 3.43±.50 liters, 87.68±6.28 % & 87.12±5.12 %, 8.52±1.14 liters/sec & 8.73±1.22 liters/sec, 2.82±.78 sec & 3.09±.71 sec respectively.

Conclusion: It was concluded that with chronicity of type 2 diabetes, the various pulmonary function variables were reduced in Punjabi type-2 diabetics. The reduced pulmonary functions in diabetics may be due to microangipathy of the alveolar capillary network in the lungs.

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