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A Golden Age in Respiratory Research

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Poster Presentation

Diabetes mellitus type 2 (T2D) as a comorbidity of
Chronic Obstructive Pulmonary Disease (COPD)

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Diabetes mellitus type 2 (T2D) as a comorbidity of Chronic Obstructive Pulmonary Disease (COPD)

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AIM

We aimed to investigate the association between COPD and T2D and the relation to the severity of airflow limitation.

MATERIAL AND METHOD

Cross-sectional study including 120 patients with initially diagnosed COPD, aged 40 to 75 years and 60 non-COPD subjects matched by age, smoking status, body mass index, as controls. All study participants underwent anthropometric measurements, fasting blood sugar (FBS), oral glucose tolerance test (OGTT) (performed in patients with fasting blood sugar level 5.6-6.1mmol/L (measured two times), lipid profile, CRP, pulmonary evaluation (dyspnea severity assessment, baseline and post-bronchodilator spirometry, gas analyses, chest X-ray).

RESULTS

Results presented statistically significant difference in presence of T2D in COPD patients compared to controls (45.0% vs 20.0%; $P=0.0011$). According to the GOLD classification, the frequencies of T2D in COPD patients were categorized in stages I, II, III, IV (25.0%, 43.3%, 52.5%, 58.3%, respectively), and according to combined assessment test in A, B, C, D (29.2%, 37.5%, 35.0%, 41.7% respectively). In GOLD2 stage, the risk for T2D was 2.3 times higher than GOLD1. COPD patients with T2D presented significant association with pulmonary function. FBS was higher in COPD than controls (8.4 ± 1.1 mmol/L vs 4.9 ± 2.1 mmol/L) with statistical significance ($p<0.0001$), but HDL was lower in COPD than controls (39.1 ± 6.4 mg/dl vs 49.6 ± 3.9 mg/dl) with statistical significance ($p<0.0001$).

CONCLUSION

We found higher prevalence of T2D in patients with COPD even in the early COPD stages compared to non-COPD controls. Our findings suggest that multidisciplinary approach in COPD patients is very important for prevention, diagnosis and early start of treatment.

THANK YOU !



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