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Title: Do all COPD patients present irreversible airflow limitation?

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Body: COPD is a disease characterised by airflow limitation (AL) that is not fully reversible. GOLD guidelines define AL in COPD as a postbronchodilator FEV1/FVC of <0.70. On the other hand ATS/ERS 2005 guidelines define AL as FEV1/FVC < lower limit of normal (LLN) set at -1.645 standard deviation. The aim of the study was to analyse patterns of bronchodilator response in patients with COPD according to ATS/ERS standards. The study group consisted of 628 (242 females and 386 males) patients with clinical and spirometric (postbronchodilator FEV1/FVC <0.70) diagnosis of COPD. Mean age of the patients was 64.0±9.13 years. Significant improvement after 400 µg of Salbutamol (increase in FEV1 and/or FVC >12% from baseline and >200 mL) was observed in 243 (38.7%) patients. Interpretation of bronchodilator tests according to ATS/ERS 2005 guidelines confirmed irreversible AL (pre- and postbronchodilator FEV1/FVC <LLN) in 493 (78.5%) of the patients. However in 54 (8.6%) patients there was no AL neither in pre and post spirometry, in 63 (10.0%) AL was reversible (prebronchodilator FEV1/FVC <LLN and postbronchodilator FEV1/FVC ≥LLN), and in 18 (2.9%) AL appeared only in the postbronchodilator spirometry. Our results showed various patterns of acute bronchodilator response in COPD, and in almost 1/5 of patients, GOLD classification of AL was discordant with ATS/ERS 2005 criteria of bronchodilator test interpretation.