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Results: In a cohort of 53,191 COPD patients, we identified 2401 cases of cataracts. There was no apparent association between SFC prescriptions and increased risk of cataracts, regardless of timing or duration. A lack of dose response was observed for the FEV₁ average daily dose in the prior year, relative to the low dose group: medium OR: 1.1 (95%CI: 0.9, 1.4); high OR: 1.2 (95%CI: 0.9, 1.5); very high OR: 1.2 (95%CI: 0.9, 1.7).

Conclusions: In this case-control analysis nested within a population-based COPD cohort from the UK, we did not observe an association between SFC and risk of cataracts or a dose response relationship between SFC average daily dose and increased risk of cataracts.

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Underweight defined as low BMI in COPD - results from population studies
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Background: Low BMI in COPD is associated with a poor prognosis. The prevalence of underweight in COPD is poorly investigated and the pattern of risk factors is not well established.

Aim: To study the prevalence of underweight, defined both as BMI < 18.5 (WHO-criteria) and BMI < 20.0 in an epidemiological setting and to analyse the correlation between BMI and COPD by severity, sex and age.

Methods: The study is based on pooled data from four cohorts of the Obstructive Lung Disease in Northern Sweden (OLIN) Studies including 5190 subjects of the general population with records of lung function, length and weight. Covariates used in multivariate analyses include age, sex, smoking habits, socio-economic status, area of living, heart disease, hypertension, diabetes, use of oral corticosteroids and coexistent respiratory symptoms.

Results: Underweight defined as BMI < 18.5 was found in 1.3% among subjects with COPD according to GOLD criteria and in 0.8% of those without COPD. The corresponding figures for BMI < 20.0 were 4.2% and 3.6%. In bivariate analyses there were significant association between BMI groups and COPD stages. In analysis of means, BMI was lower in higher COPD stages. COPD stage III yielded an OR of 3.8 (95%CI 1.5-9.5) for BMI < 20 with female sex, age < 50 years and current smoking also significantly associated with underweight in the multivariate model. Similarly COPD stage IV yielded an OR of 8.1 (95%CI 2.1-31.5). COPD stage IV yielded an OR of 27.2 (95%CI 4.9-151.6) for underweight defined as BMI < 18.5.

Conclusion: COPD, particularly in stage III and IV, was significantly associated with BMI < 20.0 and BMI < 18.5 even after correcting for covariates.

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Genetically elevated ace activity is not associated with ischemic heart disease, hypertension, or physical activity in COPD

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Background: The angiotensin-converting enzyme (ACE) gene is a potential candidate gene for risk of co-morbidity in COPD.

Methods and aims: In 1259 Danish COPD patients, we determined whether individuals homozygous or heterozygous for the ACE D allele are at greater risk of ischemic heart disease, hypertension, or low physical activity compared with ACE I homozygous individuals. As a secondary aim, we tested whether ACE genotype is associated with overall risk of asthma or COPD in the general population (n = 9034).

Results: Among patients with COPD, serum ACE activity increased with the number of D-alleles (Kruskal-Wallis ANOVA: II vs. ID, p < 0.001; ID vs. DD, p < 0.001); However, this did not translate into altered risk of cardiovascular illness or low physical activity. Among patients with COPD, the odds ratio (95% confidence interval) for ischemic heart disease was 1.1 (0.8-1.6) for ID and 1.2 (0.8-1.7) for DD compared with I individuals; corresponding odds ratios for hypertension were 1.1 (0.7-1.5) and 0.8 (0.5-1.2), and for low physical activity 1.1 (0.8-1.6) and 0.8 (0.6-1.1). In the general population, the odds ratio for asthma was 1.2 (0.9-1.4) for ID and 1.2 (0.9-1.5) for DD vs. I individuals; corresponding odds ratios for COPD were 0.9 (0.8-1.1) and 1.0 (0.8-1.2). The results were similar upon adjustment for sex, age, smoking status, body mass index, total cholesterol, and ACE inhibitors.

Conclusions: These data suggest that lifelong genetically elevated ACE activity is not a major risk factor for ischemic heart disease, hypertension, or low physical activity in patients with COPD, nor with overall risk of COPD or asthma.

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A prospective study on COPD and risk of mortality five years later
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Background: COPD is a leading cause of morbidity and mortality worldwide, affecting approximately 15% of middle-aged adults living in Latin America. However, there are relatively few data on the long-term consequences of COPD, particularly in low and middle-income countries.

Objectives: To explore the association between COPD and risk of mortality five years later.

Methods: 885 adults aged 40 years or more were examined in 2003 as part of the PLATINO study phase 1. COPD was defined as FEV₁/FVC < 0.7. The GOLD stages were also analyzed. Subjects were re-examined in 2008 as part of the PLATINO study phase 2, and mortality systems were monitored.

Results: Out of the 885 adults examined in 2003, 71 are known to have died. Among 711 COPD-free subjects in 2003, only 5.5% died in the period, while the equivalent percentage was 18.4% for those with COPD in 2003. In the unadjusted analyses, the risk of death for COPD subjects was 3.35 times greater than for non-COPD individuals. After adjustment for sex, age and schooling, the risk was reduced to 2.08, but was still highly statistically significant (p = 0.002). In comparison to subjects with no symptoms, the risk of death was 1.26 times greater for those with symptoms, but normal spirometry in 2003, 2.79 times greater for those in stage I of the GOLD classification, 4.58 times greater for those in stage II, 15.7 times greater for those in stage III and 20.9 times greater for those in stage IV.

Conclusions: COPD is a strong risk factor for mortality, and therefore, its prevention and adequate treatment are urgently required in Latin America.

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The impact of dynamic lung hyperinflation on morbidity and mortality in patients with chronic obstructive pulmonary disease

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Aim: Dynamic lung hyperinflation (DH) has important clinical consequences in patients with COPD, however, the knowledge about the long term clinical consequences of DH is lack. We aimed to assess the impact of DH on morbidity as evaluated by emergency visits and hospital admissions because of exacerbations and also mortality in patients with COPD during a 4 year period.

Methods: We recruited 73 stable COPD patients, diagnosed according to GOLD criteria, from October 2004 to June 2005. The follow-up ended in January 2009; the mean follow-up period was 45 (range 21-50) months. The relationships of different respiratory parameters [FEV₁%, body mass index (BMI), six minute walking test distance (6MWT), static hyperinflation as measured by IC/TLC, dynamic hyperinflation as measured by ΔIC/TLC, PaO₂ and PaCO₂] with emergency visits and hospital admissions because of exacerbations and also with respiratory and all-cause mortality were assessed.

Results: During the follow-up there were 8 (11%) deaths. On the basis of multivariate regression analysis (Cox proportional hazards model), dynamic hyperinflation (HR=1.4; 95%CI=1.09-1.84, p=0.009) and 6MWT distance (HR=0.98; 95%CI=0.97-0.99, p=0.006) were found to be independent predictors of all-cause and respiratory mortality. DH was also significantly related to morbidity as emergency visits (r=0.28, p=0.001) and hospital admissions (r=0.38, p=0.016).

Conclusion: Dynamic hyperinflation is a good and independent predictor for mortality and also related to morbidity in COPD patients. We propose that dynamic hyperinflation be considered in the assessment of long term clinical consequences of patients with COPD.

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Description of gold-defined COPD severity stages in UK primary care

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Descriptive epidemiology studies of chronic obstructive pulmonary disease (COPD) disease severity mostly originate from general population cohort studies. This study aimed to describe the prevalence of disease severity in COPD, as defined by the Global Initiative for Chronic Obstructive Lung Disease (GOLD), in a primary care setting by analyzing electronic medical records in the General Practice Research Database (GPRD). A cohort of COPD patients with a diagnosis between 1998 and 2006 was identified. Patients aged 35 years and older with a spirometry confirmed COPD diagnosis (FEV₁/FVC < 0.7) were selected. The most recent FEV₁ percent predicted measurement available during 2005 to 2007 was used to assess disease severity, defined as GOLD Stage I: FEV₁ ≥ 80% predicted; II: 50% ≤ FEV₁ < 80%; III: 30% ≤ FEV₁ < 50%; IV: < 30%. Considering



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