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| <i>Thesis Title</i> | <i>Occurance of Osteoporosis in COPD Patients in Baghdad Teaching Hospital and Its Relation to Varios Risk Factors</i> | | | |
| <i>Year</i> | <i>2015</i> | | | |
| <i>Abstract</i> | <p>Background: Chronic obstructive pulmonary disease (COPD) is a syndrome of progressive airflow limitation caused by the abnormal inflammatory reaction of the airway and lung parenchyma. Osteoporosis is one of the major extrapulmonary manifestations of COPD. The prevalence of osteoporosis in COPD patients in Iraqi population is unknown.</p> <p>Objectives: To study the incidence of osteoporosis among COPD patients and its relations to various risk factors.</p> <p>Materials and Methods: The study was done in Baghdad Teaching hospital. All the diagnosed cases of 70 COPD patients according to the GOLD guidelines were included in this study. The present study was a cross sectional study during a period of August 2014 - Octoper 2015 . A brief history of the patients was taken, especially regarding duration of illness, number of exacerbations in the past 3 years, smoking in pack years, and history of steroid use (both systemic and inhaled steroids) after which cumulative dose of steroids was calculated.</p> <p>Spirometry was done in all these patients to stage the severity of COPD according to GOLD criteria. DEXA scan of the lumbar spine was done using bone densitometer to determine osteoporosis. (WHO) criterion for definition of</p> | | | |

osteoporosis was applied and patients with T-score of below -2.5 standard deviation (SD) were diagnosed to have osteoporosis, -1 SD to -2.5 SD

were diagnosed to have osteopenia and more than -1 SD as normal.

Results: A total of 70 COPD patients were included in this study,

Among these,

36 patients (51.4%) had osteoporosis and 23 patients (32.8%) had osteopenia.

Majority (94.4%) of the patients who had osteoporosis had stage III and stage IV

COPD disease. It was observed that as the severity grade of COPD increased ,

the risk of osteoporosis also increased. The bone mineral density (BMD) showed

a significant difference among different stages of COPD. It was also observed

that patients with lower body mass index (BMI) had higher prevalence of

osteoporosis (91.7%) as compared to overweight patients. On univariate

analysis, it was observed that risk factors for osteoporosis were female sex,

higher number of exacerbations, BMI, and severity of COPD. After using

multivariate analysis, stage IV COPD , number of acute exacerbations >3 in the

previous 3 years , and steroid cumulative dose >1000 mg were observed to be

significant risk factors for osteoporosis in COPD patients.

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Conclusions: In the present study, the osteoporosis was high incidence more

than 50 % and for osteopenia was less incidence (32.8%) . As the severity of

COPD increased, the risk of osteoporosis increased.. Low BMI, use of systemic

steroid, and repeated number of exacerbations were found to be significant risk

factors for osteoporosis in COPD patients.