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**Original article**

**Can Body Mass Index correlate with severity of Chronic Obstructive Pulmonary Disease? A cross sectional study done in rural population of Jaipur**

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**Abstract:**

**Background**: Association between BMI and poor prognosis of patients with COPD is a common clinical observation and it varies with different stages of COPD. Despite its importance, little information is available regarding BMI alteration in COPD from a population-based study. Aim:To study the correlation between examine BMI and severity categories in COPD and explore the factors influencing BMI in COPD.

**Material and Methods:** Patients with clinical history consistent with COPD were subjected to spirometry to stratify them according to severity. 20 healthy relatives of these patients or other visitors of the hospital served as controls for the study.

**Results:** 80 stable COPD patients were studied and analysed on the basis of the clinical history, mMRC grade, GOLD & ABCD classification, to assess their functional status. . The distribution of the patients in various risk categories was fair as there were 13, 21, 21 and 25 patients in category A, B, C and D respectively. In this study mean BMI of the patients was 21.20+3.37. It was lower in category D i.e. 18.86±2.43 Kg/M2as compared to the rest of the patients, the differences being statistically significant (P=0.000).

**Conclusion:** This study was conducted in rural population of Jaipur district. We found that as the severity of COPD increased the BMI decreased and vice versa. Hence, we conclude that the association of BMI with COPD is of inverse correlation and a strongly significant one.

**Keywords:** BMI,COPD