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**Original article**

**Correlation of blood glucose levels on the outcome of patients with acute exacerbation of chronic obstructive pulmonary disease
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**Abstract:**

**Background and objectives**: Chronic obstructive pulmonary disease (COPD) is a common and preventable disease with increasing public health importance around the world. Many studies in the past have shown that hyperglycaemia is associated with poor outcomes from a wide range of acute illnesses. The present study was undertaken to determine the relationship between blood glucose levels and clinical outcomes in patients admitted with Acute Exacerbation of COPD (AECOPD).

**Materials & Methods:** The present hospital based prospective case series study was conducted on the patients admitted with the diagnosis of AECOPD under the Department of General Medicine in HSK Hospital& research centre, during the period of January 2014 to December 2014. Random blood sugar level by GOD-POD method (glucose oxidase - peroxidase, kits by Erba) method immediately at the time of admission, and other baseline investigations necessary to rule out other co-morbid conditions such as chest X-ray, ECG, 2D Echo, HbA1C, renal function test, complete blood count, sputum examination, spirometry and ABG.

**Results:** By comparing the mean length of hospital stay between the quartiles by using post hoc test there is no statistical significant relation found between the quartiles of RBS ≤140 mg/dl and 141-170mg/dl. (p=0.85). But there is statisticallyhighly significant relation between the quartiles of RBS ≤140 mg/dl with 171-200 mg/dl& ≥201 mg/dl with p value 0.01. Again, there is no statistical significance between other groups.

**Conclusion:** The conclusions arrived at from our study are that higher the admission RBS, longer was the median duration of stay in the hospital for patients with AECOPD. Admission RBS more than 170 mg/dl is detrimental in AECOPD patients. The mortality rate was also high in patients with AECOPD and higher admission RBS levels (more than 200 mg%).

**Key words :** AECOPD, Acute exacerbation of chronic obstructive pulmonary disease