

Abstract

Low serum phosphorus levels may be responsible for this state of muscle weakness that further negatively impacts COPD patients. Phosphate plays an important role in different cellular biochemical processes that control lipid , protein and carbohydrate metabolism. Moreover, phosphate is a major constituent of the ATP(Adenosine triphosphate) that is required for execution of different biochemical processes with subsequent effects on muscle contractility and cellular integrity.

This study evaluates the effect of low blood phosphorus levels on patients admitted with acute exacerbation of COPD regarding severity of COPD exacerbation, need for ventilation, duration of ventilation and outcome.

In this work the need for mechanical ventilation increased in patients with hypophosphatemia more than in patients with normal phosphorus level,(83%)of patients with hypophosphatemia were ventilated while only(11%) of patients with normal phosphorus level, also hypophosphatemia is associated with poor outcome, in patients with hypophosphatemia (56.6%) of patients discharged while (43.4%) of patients died, while in patients with normal phosphorus levels (75%) of patients discharged while (25%) of patients died.

In this study duration of ventilation increased in patients with hypophosphatemia more than in patients with normal phosphorus level due to failure of weaning as hypophosphatemia causes respiratory muscle weakness and diaphragmatic weakness.

Keywords:hypophosphatemia,ventilation.