

Hyponatremia in Community-Acquired Pneumonia

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Abstract : Introduction: Hyponatremia is defined by a blood sodium level of ≤ 136 mmol/L; it is associated with a high risk of morbidity and mortality in the emergency room. This was explained by transit disorders, including diarrhea and inappropriate antidiuretic hormone secretion (Syndrome of inappropriate antidiuretic hormone secretion). Pneumonia can cause dyspnea, stress-causing SIADH and digestive symptoms (diarrhea and vomiting). Aim: The purpose of this study was to determine the link between pneumonia and hyponatremia as a predictor of patient's prognosis and intra-hospital mortality. Methodology: This is a prospective observational study over a period of 3 years in the emergency department. Inclusion :patients (age > 14 years), with clinical signs in favor of pneumonia. Natremia was measured. Natremia was classified as mild to moderate with a blood sodium level between 121 and 135 mmol/L and as severe with a blood sodium level ≤ 120 mmol/L. Results: This study showed an average serum sodium value of 135 mmol/L (range 114-159 mmol/L) in these patients. Hyponatremia was observed in 123 patients (43.6%), 115 patients (97,8%) had mild to moderate hyponatremia and 2,8% had severe hyponatremia. The mean age was 65 ± 17 years with a sex ratio of 1.05. The main reason for consultation in patients with hyponatremia was cough in 58 patients (47.2%), and digestive symptoms were present in 25 patients (20.3). An altered state of consciousness was observed in 11 patients (3%). Patients with hyponatremia had greater heart rate ($p=0.02$), white blood cell count ($p=0.009$), plasmatic lactate ($p=0.002$) and higher rate of pneumonia recurrence ($p=0.001$). In addition, 80% of them have a positive CURB65 score (≥ 2). hyponatremia had higher rates of use of oxygen therapy compared to patients with normo-natremia (54% vs. 45%). The analytical study showed that hyponatremia is significantly associated with intra-hospital mortality with ($p=0.01$), severe hyponatremia $p=0.04$. Conclusion: Hyponatremia is a predictor of mortality and worse prognosis. Recognition of the pathophysiological mechanisms of hyponatremia in pneumonia will probably allow better management of it.

Keywords : oxygenotherapy, mortality, recurrence, positif curb65

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