Morbimortality of hospitalized patients receiving parenteral nutrition and presenting hyponatraemia.

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INTRODUCTION

Hyponatraemia is the most frequent electrolyte disorder found in clinical practice, and has been associated with increased morbimortality. Hyponatraemia is even more common among patients receiving parenteral nutrition (PN), a therapy increasingly in use. However, the morbimortality of hyponatremic patients on PN is unknown.

METHODS

Retrospective study, selecting all patients receiving PN in a teaching hospital from 01/11/11 to 01/06/12. We evaluated hospital length-of-stay (LOS), in-hospital mortality, serum Sodium (SNa) at admittance, at start and end of PN, and at discharge. Hyponatraemia defined as glycemia-corrected SNa < 135 mmol/L, triglycerides < 400 mg/dL.

Data analysis: X², T-test, Mann Whitney U, Logistic regression. SPSS 15

RESULTS

222 patients received PN (57.2% males). Median age 75 [61-82] years. 14.5% presented malnutrition (by BMI). Charlson index was 3.3 (SD 2.4). LOS was 30 [20-40] days. Mortality was 17.7%, 50.4% (112/222) presented hyponatraemia in at least one SNa determination, 27% in at least 25% of SNAs, 15.7% in at least 50% of SNAs, and 3% in at least 75% of SNa. Mortality rate and LOS ≤30 days distribution depending on the presence of hyponatraemia in the minimum, 25, 50 and 75th percentile (P) of all SNAs in each patient (Table n°1 and n°2).

Logistic regression analysis of mortality and LOS ≤30 days depending on the presence of hyponatraemia in the minimum and 25, 50 and 75th percentile (P) of all SNAs in each patient, adjusted by age, gender, Charlson index and BMI (Table n°3 and 4).

CONCLUSIONS

The presence of sustained hyponatraemia is independently associated with increased mortality in patients receiving parenteral nutrition. The absence of hyponatraemia is independently associated with a shorter hospital length-of-stay. Hyponatraemia should not be overlooked in PN patients.