

A CASE STUDY OF SYNDROME OF INAPPROPRIATE ANTIDIURETIC HORMONE SECRETION: ALTERNATIVE TREATMENT TO TOLVAPTAN WITH UREA AND SODIUM CHLORIDE



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Background

The syndrome of inappropriate antidiuretic hormone secretion (SIADH) is a frequent cause of hyponatremia consisting of a reduction of plasma sodium concentration values below 135 mEq/L. This condition, reducing the survival of the patient, extends the duration of the hospital stay and therefore increases the cost for a given patient.

Purpose

To provide an alternative treatment to the use of Tolvaptan, either to enable cost savings and to maintain a good quality of life for patients by raising the plasma sodium values, and consequently lowering the cost of hospitalisation.

Material and methods

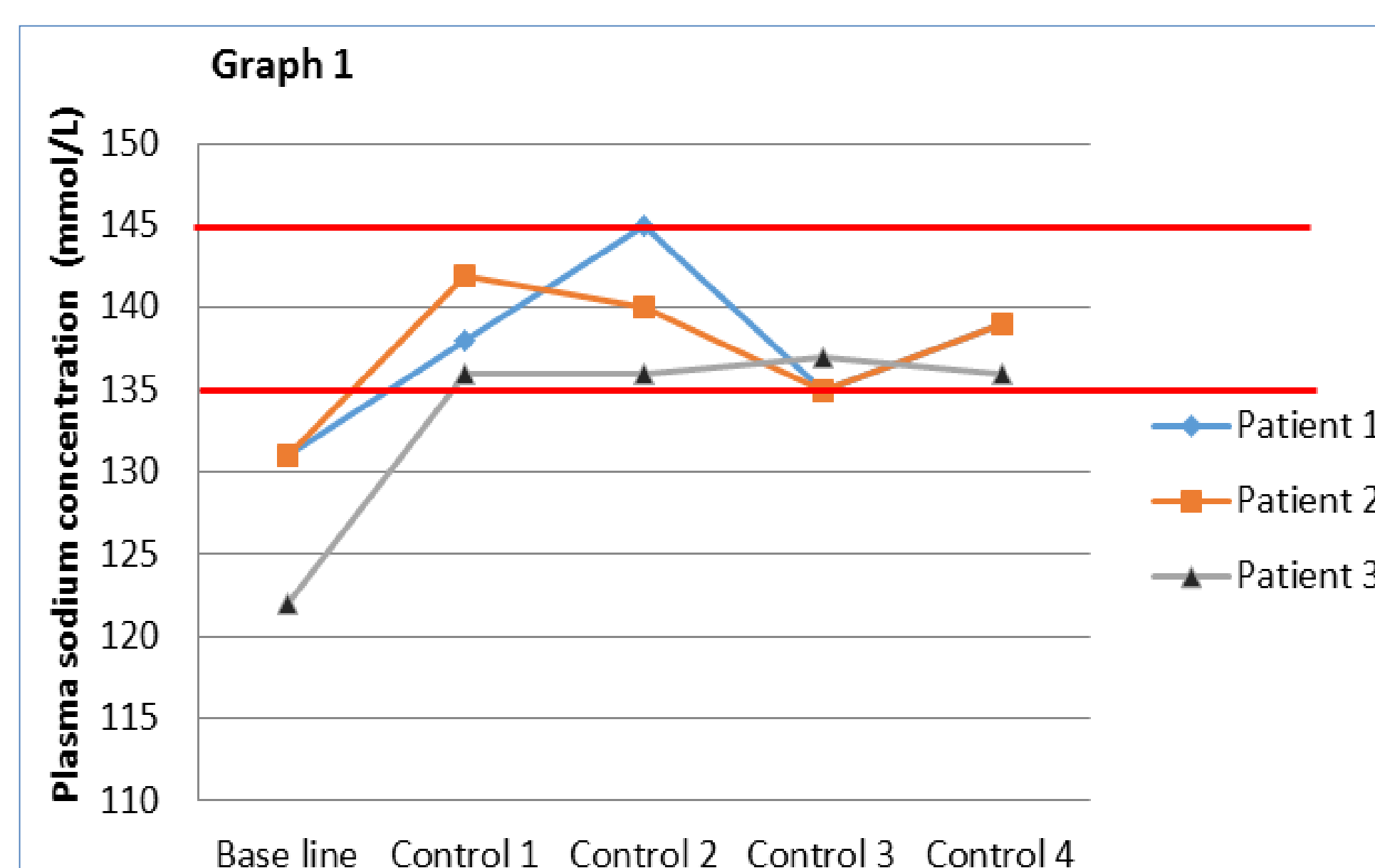
Three patients were perorally administered with urea and sodium chloride (NaCl) capsules to treat SIADH. All of them are affected small-cell lung cancer and are under chemotherapy (carboplatin). We speculate that NaCl and Urea should be as effective as Tolvaptan(1).

We evaluated the patient natremia, four times, and the cost of the pharmacist's performances for the preparation of 30 g of urea and 2 g of NaCl capsules.



Results

The natremia was normalized after the treatment administration as shown in graph 1. With the treatment of NaCl and urea, the effectiveness was achieved, despite the carboplatin therapy and the patient medical condition who are both well-known causes of SIADH.



The treatment with Tolvaptan 15 g or 30 g costs 70 € per die, compared to 6,6 € for NaCl 2 g with 30 g of Urea.

The patients not need hospitalized due to hyponatremia occurring.

Conclusions

These preliminary data may indicate that the therapy based on oral administration of urea and NaCl is effective as Tolvaptan in the treatment of SIADH. This new treatment approach being less aggressive and cheaper, may be interesting for further investigations regarding this therapeutic alternative.

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