



## Impact of dysenaemia in the intensive care unit in the emergency department of the ORAN Hospital

**Autors** : Soulef Bousbia- Soumia Benbernou- Nabil Ghomari- Houria Mokhtari Djebli

### 1. Introduction – definitions :

Dysatremias are among the most common hydroelectrolytic disorders, they can be a reason for hospitalization on

resuscitation when they are deep or quick to settle or a complication acquired during their hospitalization, increasing the prognosis.

The physiological values of a normal natremia vary between 135-145 mmol/l.

A natremia lower than 135 defines hyponatremia and its prevalence in resuscitation, which varies from 17% to 28% according to the studies.

A natremia greater than 145 mmol/l defines hypernatremia, its prevalence varies between 6% and 9%.

### 2. Objectives:

- Estimate the frequency of resuscitation dysatremia.
- Determine the etiologies of dysnatremia.

### 3. Material and method:

#### **Type of study:**

It is a two-month, prospective, transversal descriptive study in August-September 2016 within the Medical Emergency Resuscitation Department of the CHU ORAN.

#### **Population studied:**

All patients hospitalized in resuscitation.

Patients with dysenaemia were included on admission or during their stay in resuscitation.

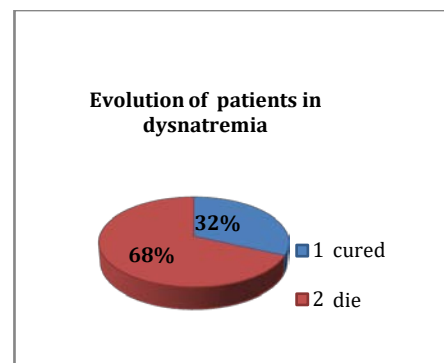
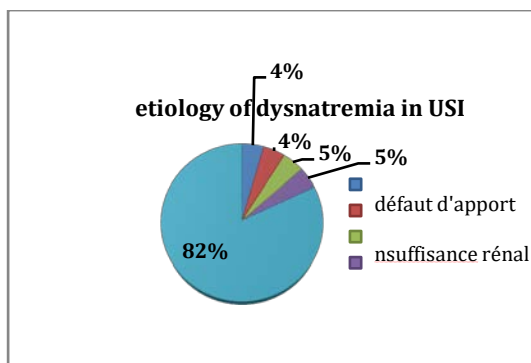
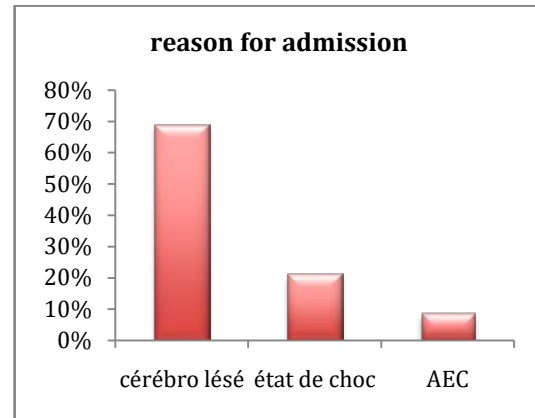
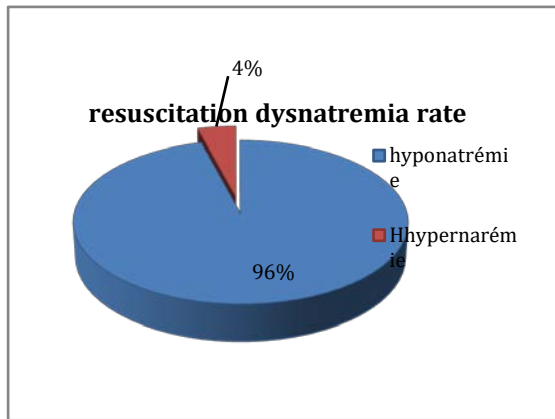
Any patient who does not have dysatremia was excluded.

The data collected were as follows: age, sex, reason for admission, type of dysatremia, method of installation, etiologies used, treatment and evolution.

### 4. Results:

Between August 1 and September 30, of the 36 patients hospitalized in the emergency department, 63% (n=23) had dysenaemia. These patients had both types of dynasaemia during their hospitalization.

The prevalence of hypernatremia was 96%, while the prevalence of hyponatremia was only 4%.



### 5. Discussion:

In our study, 82.85% represented patients of age <60 years. The delay in the onset of the disorder was 65% acute, but the reason for admission was far from an ionic disorder, 70% of patients were admitted as a result of brain damage. In our service it was found that hypernatremia accounted for 95% of dysnatremia, which is consistent with the literature that reports a rate of 72%, the majority of which concerned brain-damaged patients(1). This finding is explained by the practice of care such as excessive uncontrolled filling, when treating shocked patients and the impossibility of access to water and the inability to feel or express thirst (age, neurological disorders, head trauma)(2). Also, hypernatremia was associated with a poor prognosis, the death rate was 68% which is confirmed by the literature(1). Our treatment consisted of enteral water, 5% glucosol serum by parenteral route and desmopressin.

### 6. Conclusion:

Dysnatremias affect the majority of patients in resuscitation, many of these disorders are of iatrogenic origin and could therefore be avoided. Sometimes their presence is even used as an indicator of the quality of care, filling and the lack of free access to water are the main mechanisms of hypernatremia which are therefore most often iatrogenic. Even mild dysnatremia is associated with a worsening of the vital prognosis, which suggests the importance of screening for prevention and rigorous management of this disorder.

## **7. Bibliographie:**

1. Polderman KH, Schreuder WO, Strack van Schijndel RJ, Thijs LG. Hypernatremia in the intensive care unit: an indicator of quality of care Crit Care Med. 1999; 27: 1105-8. SFAR 2010;
2. Dysnatrémie : faut-il y prêter attention ? © SRLF et Lavoisier SAS 2014

© GSJ