Diabetes insipidus in neuro-intensive care unit : clinical, etiological, and assistance aspects

A.Naili, H.Triki, S.Bouderra, Intensive care unit -EPH Sidi-Ghiles-Tipaza-Algeria

Introduction:

Central diabetes insipidus (CDI) is defined by the inability to retain free water, it is due to an insufficient release of the anti-diuretic hormone by the hypothalamus⁽¹⁾. CDI is one of the most frequent complications after traumatic and no traumatic neurosurgical procedures. It can be transient in 30% of cases, and definitive in 2%-10% of cases. ⁽²⁾

Patients and method :

530 patients scheduled for neurosurgical procedures were included in the retrospective study over a 8 months period (from June 1st, 2015 to January 31, 2016). We collected clinical, etiological and therapeutic data of those with CDI.

Discussion :

In the litterature:

*The incidence rate of central diabetes insipidus in reanimation corresponds to 4-7% ⁽³⁾.

* Pituitary surgery is described as the primary cause of CDI with a rate of 60-75% ⁽³⁾.

•After trans-sphenoidal pituitary surgery, the percentage of transient and final CDI is 90-98% and 2-10% ⁽³⁾.

•The treatment of CDI is essentially based on hormonal substitution (Desmopressin), and adequate hydration.

•By lack of technical platform: Water restriction test and Pituitary MRI have not been realized.

•The injectable form of Desmopressin is not available in Algeria.

Results :

INCIDENCE RATE
(25/530 patients)

GLASGOW SCORE ON CRANIAL TRAUMA

ETIOLOGIES

EVOLUTION

Conclusion :

The incidence of central diabetes insipidus in neurointensive care unit is certainly not negligible, it is for this reason that it must be diagnosed early in order to allow a better multidisciplinary assistance.

Sources :

(1) *Di Iorgi N, et al. Diabetes insipidus – diagnosis and management. Horm Res Paediatr 2012;77:69-84.*

(2). *Schneider HJ, et al. Hypothalamopituitary dysfunction following traumatic brain injury and aneurysmal subarachnoid hemorrhage : A systematic review. JAMA 2007;298:1429-38.*

(3) *Hensen J, et al. Prevalence, predictors and patterns of postoperative polyuria and hyponatraemia in the immediate course after transsphenoidal surgery for pituitary adenomas. Clin Endocrinol 1999;50:431-9*

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