

Postoperative Rise In Serum Sodium Level, An Indicator Of Diabetes Insipidus After Pituitary Adenoma Surgery

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Objective:

To study the efficacy of post-operative rise in serum sodium level as indicator of diabetes insipidus after pituitary adenoma surgery.

Methodology:

The study is randomized control trial, conducted in Department of Biochemistry and Department of Neurosurgery, from March 2016 to December 2017. Total no. of 169 patients was enrolled. Non-probability consecutive sampling technique was used. Postoperative cases of diabetes insipidus with rise in serum sodium level >145mEq were included. Mean and standard deviation was calculated for demographic variables like age and gender while frequency and percentage was calculated for outcome variables like type of diabetes insipidus and sensitivity and specificity of serum sodium >145mEq test. Chi square test was applied and analysis was done using computer software SPSS version 23. P value less than 0.05 was considered significant.

Results:

Overall, 100% (n=169) patients were enrolled, both genders. The mean age of the patients was 40.88 ± 4.95 years. Post-operative transient noted in 13.6% (n=23) patients. Serum sodium level (specific) observed in 92.9% (n=157) patients. While, > 145 mEq sensitive was observed in 88.2% (n=149) patients. The main outcome variable of our study was diabetes insipidus permanent that was 9.5% (n=16) patients.

Conclusion:

We concluded that level of sodium >145mEq is very sensitive and specific to predict diabetes insipidus after pituitary adenoma surgery.