

ISOTONIC SEAWATER SOLUTION AS DAILY NASAL IRRIGATION IN CHRONIC RHINOSINUSITIS

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AIMS

Nasal obstruction, increased nasal discharge, cough and other symptoms negatively affect quality of life of chronic rhinosinusitis patients¹. Add on therapy with saline nasal irrigation has shown numerous benefits by improving clinical symptoms². Some clinicians prefer use of isotonic seawater solutions. It contains many minerals essential to the body fighting chronic inflammation. The present study assessed the clinical efficacy of the Sterimar isotonic seawater solution in chronic rhinosinusitis patients. The study was approved by Ethical Committee.

METHODS

At Outpatient setting 30 chronic rhinosinusitis patients previously diagnosed, who signed informed consent, were enrolled in the open clinical study. Inclusion criteria were: presence of congestion and nasal discharge. Cough and headache were chosen from other symptoms, as significant factor influencing quality of life. As adjuvant therapy the Sterimar isotonic solution was prescribed 3-6 times daily over two weeks. The included patients visited doctor office every week, where they also filled out Quality of Life standardized questionnaire. A Patients Diary was filled out daily at home.

A statistical analysis was performed by method of contingency analysis which computes the frequency per categories for each variable; the frequency and relative frequency for all intersections of individual categories, checking the significance of differences in frequencies by the chi-square test.

RESULTS

Symptom pattern was evaluated at three points: initial, end of 1st week and end of 2nd week. Congestion, cough and headache were significantly reduced by the end of 1st week ($p < 0.01$) according to test lists filled by doctors and patient's data extracted from diary. Nasal discharge was significantly reduced according to doctor's notes ($p < 0.01$) by the end of the 1st week, but slightly less by patients self-reported data (significant reduction $p < 0.01$ after the 2nd week). QoL data have shown significant improvement after the 1st week of intensive seawater solution use. There were no side effects at all.

CONCLUSIONS

Nasal irrigation with frequent use of seawater isotonic solution is effective alleviating chronic rhinosinusitis symptoms such as nasal congestion and discharge, but also cough and headache. QoL has been improved already by the end of 1st week. There were limitations of this study related to the number of patients, short period of observation and no control group.

REFERENCES

- Bastier PL et al. Nasal irrigation: From empiricism to evidence-based medicine. A review. European Annals of otorhinolaryngology, Head and Neck Diseases. 132(2015); 281-285.
- Culig J et al. Efficiency of hypertonic and isotonic seawater solutions in chronic rhinosinusitis. Med Glas. 2010 Aug;7(2): 116-123.

RELATIVE MEAN VALUES – PROPORTIONS OF FIRST MEASUREMENTS

v1, v2 & v3 – 1st, 2nd & 3rd visit

* $p < 0.05$

** $p < 0.01$

