

Role of saline nasal irrigation in the treatment of chronic rhinosinusitis

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Use of saline nasal cleansing as non-drug treatment in many diseases of the nose and sinuses is not a novel concept. In yoga tradition and homeopathic medicine nasal lavage is a ritual, along with daily teeth-brushing.

In recent years an increasing range of hypertonic or isotonic saline products for intranasal administration are available in pharmacies and healthstores.

Different products are available as pressurized sprays (less efficient) or plastic bottles, in which one may prepare hypotonic, isotonic or hypertonic solutions. Nasal irrigation is performed by pumping in the nasal cavities the freshly prepared saline.

Warm saline irrigation is preferred instead of cold water, being less irritating and not causing exaggerated gag reflex. It is also preferred to use distilled water, sterile or boiled and cooled, due to the risk of bacterial contamination. One may also include a small amount of bicarbonate as buffering agent to adjust solution's pH to the human body pH.

General mechanism of action of saline solutions is softening nasal secretions and facilitating clearance of possible allergens (pollens, house dust mites, mold spores, animal dander, etc) from nasal mucosa. In addition to this role was highlighted a vasoconstriction effect of saline solutions, thus reducing nasal obstruction. It also appears to be involved an anti-inflammatory effect of saline solutions, reducing mediators and cells involved in allergic inflammation (histamine, prostaglandins, leukotrienes and eosinophils).

Nasal saline irrigations, before administering antiallergic sprays, increase their effectiveness, prevent mucus crusts formation and allow mucus drainage.

In conclusion, the use of saline nasal irrigation as adjunctive treatment is safe, effective, cheap and well tolerated. It can be long term used with good results in the management of allergic and non-allergic chronic rhinosinusitis.

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