

Choosing Wisely on the use of nasal saline in chronic rhinosinusitis.

Glenis Scadding, RNTNE Hospital, London.

Saline douching is probably the single most effective measure in chronic rhinosinusitis. Failure to douche is likely to lead to more expensive interventions, both medical and surgical.

Benefits

Nasal saline irrigation may aid the removal of allergens, mediators and pollutants from the nose. It also improves mucus clearance and can help to unblock the nose.

A recent Cochrane review in chronic rhinosinusitis (1) found that there was no benefit of a 5ml nebulised saline spray over intranasal steroids, whereas daily, large-volume (150 ml) hypertonic saline irrigation was superior to placebo. *Large-volume, low-pressure nasal irrigation using undiluted seawater was the most effective protocol in another recent study of several trials (2).*

At home a suitable solution can be made by adding a level teaspoon of a 50:50 mix of salt and sodium bicarbonate to 250ml of previously boiled water which has been allowed to become tepid (3). This can either be sniffed up from the palm of the hand or gently squirted into the nose via a container with a patent nozzle.

Infants can be given nebulized saline, via a nose-covering face mask or via gentle squirting with the baby lying on its side. The recommended position for older children and adults is bent with head forward and slightly to one side over a sink. The solution is directed at the ipsilateral ear (3).

Risks

Side effects are rare - but sodium load may be a problem in heart or renal failure. Occasionally over-vigorous use of a squeeze douche bottle can send saline up to the middle ear.

If used as therapy during the acute phase of the common cold there appears to be no benefit and discomfort is common (4,5,6,7).

Alternatives

Saline can be administered by two kinds of device, both commercially available. In 31 endonasal surgery patients large-volume low-pressure irrigation (Sinus Rinse) was associated with better postoperative nasal cavity cleansing than low-volume high-pressure irrigation (Sterimar) (8).

Preservatives, antiseptics, sugars and mucolytics added to irrigation solutions give no clinical benefit and may be detrimental (9-13).

Nothing

Saline douching is probably the single most effective measure in all forms of chronic rhinosinusitis (14,15). Failure to douche in chronic rhinosinusitis is likely to lead to more expensive interventions, medical and surgical.

In normal subjects, daily nasal saline may also confer benefits in preventing rhinitis symptoms (16).

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