

TREATMENT OF DISEASE WITHOUT THE USE OF DRUGS VI TREATMENT OF RHINITIS BY A YOGIC PROCESS OF CLEANING AND RUBBING THE NASAL PASSAGE WITH A RUBBER CATHETER

M.K. Sim

SYNOPSIS

Seven individuals suffering from chronic rhinitis of undetermined causes obtained no abatement of their disease when they underwent a three-month program of exercise to lower their arousal. However, the condition of six of them improved dramatically when they tried and succeeded in doing neti, a yogic process of cleaning and rubbing the nasal passage with a rubber catheter, for a duration of three weeks. One of the subjects did not respond to the treatment. It is postulated that the daily neti induced in the six subjects immunological responses (similar to those of hyposensitization) which are responsible for the remission of the disease during the twelve-month of the follow-up study.

INTRODUCTION

Voluntary lowering of arousal, done regularly, had been shown to be an effective control of migraine and asthmatic attacks (Sim, 1980; Ratnam & Sim, 1980). The operative rationale is based on the fact that these two diseases could be precipitated by stressful or emotional episodes which increase the arousal level of the patients. However, seven subjects who suffered from chronic rhinitis of undetermined causes were unable to obtain long term relief of their symptoms when they underwent the same three-month program of exercise to lower their arousal. Despite the fact that stress and anxiety were known to worsen their rhinitis, none of the subjects obtained abatement of their symptoms on a scale similar to that experienced by the migraine and asthma sufferers when comparable level of lowered arousal were attained. The short term benefit consisted of occasional transient relief of rhinorrhea following a 15-minute exercise of space visualisation (Sim, 1980), but there were no significant reduction in frequency or duration of their rhinitis. The result was wholly unexpected because behavioural factors like provocation, resentment and frustration which increase arousal had been listed as one of the eight types of influence which may lead to congestion and obstruction of nasal airway (Holmes & co-workers, 1951).

A dramatic improvement of the condition of six of the subjects was observed when they tried and succeeded in doing daily neti, a yogic process of cleaning the nasal passage with a rubber catheter, for a duration of three weeks. One of the subjects did not respond to the treatment. This article reports the details of the study and discusses the possible underlying mechanism of action of the treatment and cure.

Department of Pharmacology
Faculty of Medicine
National University of Singapore
Sepoy Lines
Singapore 0316

M.K. Sim, PhD
Senior Lecturer

METHOD

Subject

Subjects were volunteers and their personal particulars and history of rhinitis are summarised in Table 1. Subjects' rhinitis were characterised by the obstruction of nasal passage and one or more of the following symptoms:- sneezing, rhinorrhea, lacrimation, conjunctival and pharyngeal itching.

Catheter

The catheter consisted of a 16 inches microchemical hand-made rubber tubing of 1/16 inch bore and 1/32 inch wall thickness bought from Arthur H. Thomas, Philadelphia. Both ends of the catheter were smoothed by cutting off the sharp edges with a dissecting scissors.

Procedure

The catheter was first washed with soap and one end of it was gently inserted into the left nostril. The aim was to insert the catheter as far inside the nostril as possible until the inserted end emerged from the nasal passage into the mouth at the root of the tongue. The free end was then pulled out of the mouth with the fingers. Taking both ends of the catheter, (one in each hand) the catheter was pulled back and forth for 12 times with rotating movement to ensure that it rubbed against the total circumference of the wall of the nasal passage. The catheter was then pulled out of the nasal passage and the process was repeated with the left nostril.

The procedure of catheter insertion was demonstrated to the subjects by the author and three subjects were able to thread the catheter through the nasal passage as described above on the first attempt with three trials. The other subjects managed to do so within three days after repeated trials. In the initial learning period (i.e. the first three days) two attempts were made per day, one in the morning and one in the evening. Each attempt consisted of no more than three trials at threading. Following this, neti was performed once every morning for a duration of three weeks.

The frequency and duration of rhinitis, associated symptoms and medicine taken during the three week of neti and the twelve-month of follow-up study were recorded by the subjects on data recording sheets similar to those used in the migraine study (Sim, 1980). Subjects had weekly appointments in the first month and monthly appointments in the follow-up study to report the progress of the treatment and to hand up the data recording sheets.

RESULTS

The discomfort of neti caused excessive rhinorrhea, lacrimation and strong emetic responses during most of the attempts in the first week. However, with each subsequent attempt these symptoms though still present became less troublesome and nasal con-

gestion, if present, usually abated after neti. Table 2 shows that except for subject F there was a dramatic improvement of the other subjects' rhinitis (in term of frequency) of between 61 and 100% after the first week of neti, 68 to 100% after the second week and 100% after the third week.

During the follow-up study only subject D had a relapse. The first symptom appeared on the 127th day or 106 days after cessation of daily neti. Neti was re-introduced on the 131 day after the subject had suffered 3 days of severe rhinitis and called on us for a new catheter as he had misplaced his former catheter. A polythene tubing (of the same dimension as the original catheter) was used as a substitute of the original rubber catheter. This was because Authur Thomas had ceased producing the original rubber tubing and all available rubber tubings were of a size larger than the original. It was intended that subject D repeat the three-week course of neti but his rhinitis abated on the 4th day and neti was abandoned after a week. There was no further relapse of rhinitis of subject D in the remaining period of follow-up study.

Subject C phased out one application of becolmethasone (that is b.d. to o.m.) on the fifteenth day of neti and ceased becolmethasone medication on the twenty first day. All the other subjects stopped their medication as their rhinitis abated.

DISCUSSION

Current management of rhinitis is mainly by pharmacologic agents. Antihistamines, small doses of corticosteroids, alpha-adrenergic compounds and disodium cromoglycate offer varying degree of relief of the symptoms. For allergic rhinitis, avoidance of exposure to the offending allergen is the most effective means of controlling the disease. Immunotherapy or hyposensitization consisting of repeated subcutaneous injections of gradually increasing concentration of the allergen(s) (considered to be specifically responsible for the symptom complex) over a period of 2 years also produced partial relief of symptoms in allergic rhinitis. Though the nature of each of the six subjects rhinitis is not determined, their rhinitis appeared to have an allergic component as dust of various kinds could precipitate their disease. To explain the result of Table 2 we hypothesise that the three week of neti induced an immunological process (allied to hyposensitization) that was responsible for the dramatic and long term improvement of the six subjects. It could be postulated that allergen(s) entrapped in the mucous blanket of the mucosal layer is rubbed into the rich vasculature of the nasal passage by the rubber catheter. Immunological responses similar to those of hyposensitization (mainly a rise in IgG antibody and a reduction in the reactivity of peripheral basophil leukocytes) could be induced by this daily process which give rise to the remission of the disease. Mechanical removal of superficial nasal polyps, if present, by the catheter could also add to the diminution of nasal obstruction. The rhinorrhea followed by nasal decongestion which accompanied neti could be due to the stimulation of the autonomic nerves. Parasympathetic stimulation causes vaso-

Table 1

Subject	Sex	Age (yr)	Duration of rhinitis	Current medication	No. of rhinitic days/week*
A	F	26	3 years	Oxymetazoline HC1 .05%, 2 drops/nostril as required	3.3
B	M	29	2 years	Phenylephrine HC1 .5% + naphazoline nitrate .025%, 3 drops/nostril as required	every morning
C	M	31	intermittent over a period of 6 years	Beclomethasone dipropionate 50 mcg per metered dose. One application/nostril b.d.	1.3
D	F	34	2 years	Nil	2.6
E	M	34	18 months	Oxymetazoline HC1 3 drops/nostril as required	3.1
F	M	38	3 years	Nil	2.8
G	F	40	intermittent over a period of 5 years	Xylometazoline HC1 1 : 1000, 2 drops/nostril as required	2

*These are average values calculated from the number of rhinitic days observed during the twelve-week period of learning to lower arousal.

Table 2

Subject	Number of rhinitic days per week following the commencement and cessation* of daily neti				
	0 week	1st week	2nd week	3rd week	4th to 16th week
A	3.3	2	1	1	0
B	7	4	1	0	0
C	1.3	2	1	0	0
D	2.6	2	1	0	0
E	3.1	2	0	1	0
F	2.8	3	2	3	2.7**
G	2	2	1	0	0

*Neti was done for three weeks (21 days) see Text for details.

**This value was the average number of rhinitic day in the 4th, 5th and 6th week.

dilation and an increase in glandular secretion while sympathetic stimulation causes intense vasoconstriction, reduction in size of erectile tissue and a widening of the nasal airway (Lichtenstein and Norman, 1971). Though rhinorrhea and nasal congestion would result from stimulation of the parasympathetic and sympathetic nerves respectively it is difficult to imagine that the nerves were stimulated sequentially. Probably because of the vascular and glandular engorgement sympathetic stimulation would cause an initial discharge of glandular and cellular tissue as sympathomimetic drugs are known to act on erectile tissue of glands causing discharge of their contents.

The refractoriness of subject F's rhinitis to neti evades explanation. The result in the follow-up period shows that subject F had an average of 2.4 attacks per week in the first 6 months and 3.1 in the second 6 months.

ACKNOWLEDGEMENT

This research was supported by a research grant from the Singapore Turf Club.

REFERENCES

- Holmes T H, Trenting T and Wolff H G: Life situation, emotions, and nasal disease, evidence on summative effects inhibited in patients with "hay fever". *Psychosom. Med.* 1951; 13: 71-87.
- Lichtenstein L M and Norman P S: Pathogenesis of allergic rhinitis. Stamter, M. (ed), *Immunological Disease*, Boston, Little Brown, p 825, 1971.
- Ratnam K V and Sim M K: Treatment of disease without the use of drugs. IV. Self-treatment of asthma by thought control and breathing exercises. *Singapore Medical Journal* 1980; 21: 604-608.
- Sim M K: Treatment of disease without the use of drugs. III. Self-treatment of migraine by thought control. *Singapore Medical Journal* 1980; 21: 522-524.