

# Vasomotor rhinitis: psychosomatic conditions and treatment

*A. Cozas, J. Stavrou and C. Antonakopoulos,  
Athens, Greece*

## SUMMARY

*The importance of the autonomic nervous system in vasomotor conditions of the nose was outlined.*

*The symptoms, findings and differential diagnosis of the vasomotor rhinitis were reviewed.*

*Reference is made to the applied treatment and results obtained with different antistaminics in 2150 patients.*

VASOMOTOR rhinitis should not be regarded as a disease but as a local manifestation of an individual's reaction to the environment. This reaction will vary in different people according to their general physiological type and will also vary in any one person according to the psychological condition prevailing at the time. The nature and degree of the reaction depend on the existing balance of the autonomic nervous system, which consists in the main of two parts: the sympathetic and the parasympathetic system.

In persons where the parasympathetic system predominates, we may consider them potentially allergic, but the majority never exhibit any specific allergic reaction. In the allergic attack, an initial hyperemia, possibly due to histamine and increased capillary permeability, followed by a long-lasting oedema, may be manifested in the nasal mucosa as well as on the skin.

As far as physical findings are concerned, the sympathicotonic or so-called resentment-anger patient will reveal a hyperemic congestion. He gets occasional more bleeds with nasal obstruction and headaches. The parasympathicotonic or so-called depression-fear patient reveals the pale, violaceous type of mucosa, blocked up noses, rhinorrhea, sneezing and a feeling of tiredness. Bleeding sites may be seen in the septum or inferior turbinates and polypoid changes occur frequently. Nasal obstruction is not due to congestion but to oedema.

The vasomotor or functional symptoms must be differentiated from those of the typical allergic rhinitis and the physical allergy of the nose. Allergic rhinitis is a condition observed in patients who complain of symptoms of the hay fever type throughout the year with no apparent seasonal period. Certain types of food,

cosmetics, pollens, animals, house dust etc. may be the causative factors. Nowadays, pollution can be regarded as a causative factor giving, in some way, permanent symptoms with seasonal peaks.

Physical allergy of the nose should not be confused with the typical antigen-antibody type of allergy. In physical allergy, the main etiologic factor is the great temperature change. That is why this condition is most prominent in the spring and fall seasons of the year. The symptoms occur any time of the day or night, they are not permanent, and the patient recovers when adjusted to the temperature change.

The vasomotor group seems to be the most common chronic problem seen in one's everyday practice, comprising about 50% of the nose patients. This rate was raised to 70% by Aronoff (1974), 13% of which represented children in the first decade. According to the same author, recurrent nosebleeds are caused most frequently by an acute exacerbation of vasomotor rhinitis.

It is very common to observe a vasomotor condition coexisting with nasal infection. It is also very common for an infection of the upper respiratory tract to be the etiologic factor of vasomotor rhinitis (Krajina, 1972). It must be noticed that allergy is the ideal condition for secondary infection, a fact to be taken into serious consideration with regard to treatment, as we will see directly below.

#### TREATMENT.

Although for many years we have been familiar with the so-called „vasomotor” condition, unfortunately this condition has not yet been associated with a satisfactory line of treatment.

The general discussion of any psychosomatic illness will naturally depend on the intellectual level and receptiveness of the patient. Psychotherapy is quite beneficial if the etiology is due to stress and tension. Mild doses of minor tranquillizers and autonomic sedatives have been employed occasionally as temporary adjuvants in patients who happen to be seen at times of great stress.

At the symptomatic level, our chief reliance is on antihistaminics, the clinical effect of which varies.

Recently, different antihistaminics are being produced, which are really isomers. In our everyday practice, we often notice that while one isomer fails, another produces excellent results. From our small experience in this matter we may say that no single antihistaminic is able to achieve good results in more than 15-20% of the patients. However, by rotating a patient through various antihistaminics as it is suggested (Aronoff, 1974), we were able to raise this percentage to 50-55%. We wish to emphasize that antihistaminics are very helpful but they are only a form of symptomatic treatment and will by no means prevent another attack from occurring in the future. (Ryan et al., 1970).

Sometimes, vasomotor rhinitis will develop after virus infection of the upper respiratory tract. In most cases, this results in irreversible chronic changes, with permanent occlusion of the ostia of the paranasal sinuses. In early diagnosis, anti-inflammatory treatment parallel to antihistaminic therapy seems to clear the

condition in a rather short time. From our cases in children, where this complicated condition is more frequent, infectious rhinitis was observed in 60% of the cases where vasomotor rhinitis was diagnosed.

Finally, we should like to stress the necessity of a nose operation in cases of vasomotor rhinitis (Antonelli et al., 1963). This of course concerns the adult patient and in one opinion surgery is indicated in all cases where conservative treatment fails, regardless of the extent of the mechanical obstruction: Removal of crests and spurs of the septum, hemitranssection of the septum, slight cauterization of the inferior turbinates, fracturing of the inferior turbinates, Caldwell-Luc operation and nasal polypectomy. In children adenoidectomy is indicated as a measure of prophylaxis.

#### RESULTS.

Out of 2.150 patients treated over the last six years for nose problems, approximately 40% concerned vasomotor rhinitis, with or without nasal infection. This mixed condition was definitely more common in children between the ages of 3-11, at a rate of 18-20%.

As stated, the response to antihistaminics differs from person to person and they are administered empirically, taking into consideration the psychosomatic disposition of the patient, though this is not always imperative.

The pattern of treatment we used was as follows:

1. For five days administration of mild antihistaminics:
  - antistin (antazoline) 80-100 mg three times daily
  - synopen (chloropyramine) 50 mg three times daily
2. If no improvement, administration for the next five days of strong antihistaminics but with mild sedative effect:
  - chlortrimeton (chlorpheniramine) 2-4 mg three times daily
  - di-paralene (chlorocyclizin) 2-4 mg three times daily
  - periactin (cyproheptadine) 2-4 mg three times daily  
(also antiserotonic effect)
3. If no improvement again, administration for the next five days of strong antihistaminics with strong sedative effect:
  - benadryl (diphenhydramine) 50 mg three times daily
  - pyribenzamine (tripenelamine) 50 mg three times daily
  - phenergan (promethazine) 25-50 mg three times daily
4. The last group of medicaments administered is a complex one of antihistaminics and sympathomimetics such as:
  - dimetapp (brompheniramine + phenylephrine + phenylpropanolamine)
  - disofrin (dextbrompheniramine maleate + D-isoephedrine sulphate)
  - naldecoll (phenylpropanolamine + phenyltoloxamine + phenylephrine + carbinoxamine)
  - ornade (phenylpropanolamine + chlorpheniramine + isopropamide)

The usual side effects are dizziness and somnolence of varying degrees, dryness of the mucous membranes of the mouth and nose, anorexia and diarrhea. In the

presence of these side effects the patient should abstain from barbiturates and alcohol.

The failure of antihistamine treatment is due to the release of other active substances in several allergic conditions such as serotonin, slow reacting substance of anaphylaxis, plasmokinins etc. (Varonos, 1972).

The operations stated above in our material did not exceed 12%. In almost all our patients, for a long period even after surgery, we continued the conservative treatment with antihistaminics, which are the most effective conservative treatment so far.

#### RÉSUMÉ

L'importance du système nerveux autonome dans des altérations vasomotrices au niveau du nez a été exposé.

Les symptômes, l' image clinique et le diagnostic différentiel des rhinites vasomotrices ont été discutés.

Il est fait référence du traitement appliqué et des résultats obtenus avec différents antihistaminiques sur 2150 malades.

#### REFERENCES

1. Antonelli R. A. et Teatini P. G. (1967). Indications chirurgicales dans les rhinites vasomotrices. *Int. Rhinol.* 5:129.
2. Aronoff J. (1974). Personal Communication.
3. Krajina Z. (1972). Pathophysiological changes and surgical considerations in vasomotor rhinitis. *Rhinology* 10:27.
4. Ryan E. R., Ogura H. J., Biller F. H., Prath L. L. (1970). *Synopsis of Ear, Nose and Throat Diseases*, 3rd edition — Ed: C. V. Mosby Co, St. Louis.
5. Varonos D. (1972). *Clinical Pharmacology-Text-book*. Ed: Gr. Parissianos, Athens.

Ass. Prof. A. Coyas  
Dept. of Otorhinolaryngology  
State General Hospital  
Athens, Greece