NASAL POLYPOSIS

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Every new case, which visited the Leyden out-patients clinic for Allergy for the first time in 1964 and during the first five months of 1965 was examined rhinologically. This communication deals with the 74 patients in whom nasal polyposis was diagnosed.

These patients were divided into an atopic and non-atopic group, depending on the fact whether positive skin reactions for atopic allergens were obtained (fig. 1). The differences and similarities between the atopic and non-atopic groups form the object of this study.

A comparison of both groups concerning the number of eosinophils in the peripheral blood reveals a pronounced difference between atopic and non-atopic cases (fig. 2). Taking an amount of 400 eosinophils/cu mm as the upper limit of normal, we find in the atopic group a strong tendency to eosinophilia, this being relatively rare in the non-atopic group.

Comparison as regards the presence of eosinophils in the nasal secretions of both groups leads to similar results (Fig. 3). In more than half of the atopic cases eosinophils are found; this is the case in less than a quarter of the non-atopic cases. These findings create the impression, that nasal polyposis in itself does not cause an eosinophilia of blood and nasal secretions.

Next we investigated the blood sedimentation rate of patients with nasal polyps. In an earlier study we demonstrated that the presence of an atopy in itself does not cause an elevated sedimentation rate.

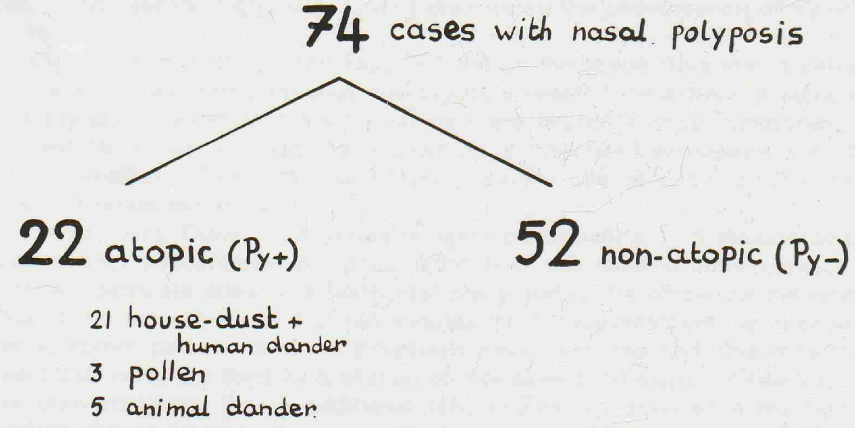

Figure 1.

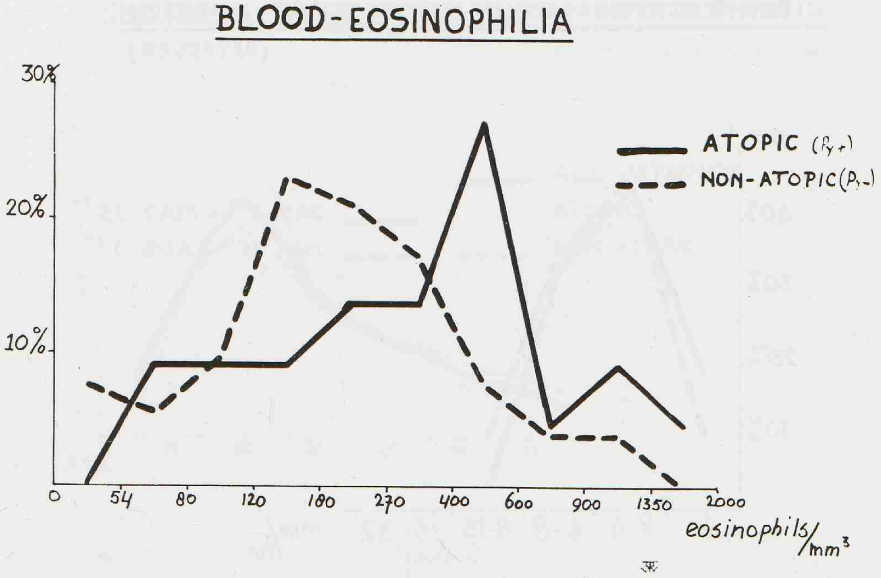

Figure 2.

If we compare two groups of patients with pollinosis (hayfever), one in a period without pollens in the air, the other during the hayfever season, we see no difference as far as the sedimentation rate is concerned (Fig. 4). The peak of the curve is at 2—4 mm during the first hour. We can draw the conclusion that an atopy in itself or contact with an atopic allergen is not the cause of an elevated sedimentation rate.
However, if we study the sedimentation rate in patients with nasal polyps, we get quite a different picture (Fig. 5). The peak of the curve is now at 8—16

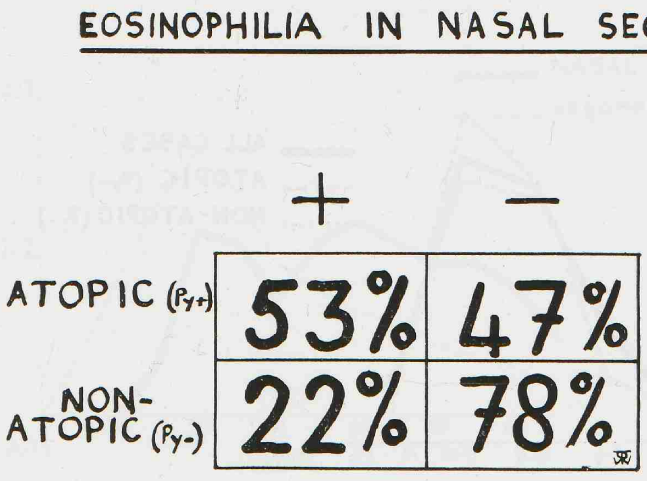

Figure 3.

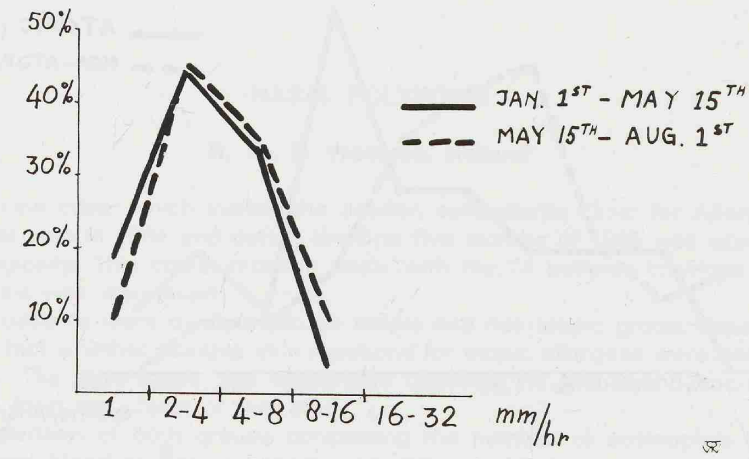

Figure 4.

mm. There is hardly any difference between the atopic and non-atopic groups. These findings suggest, that in nasal polyposis infectious factors are generally involved.

Finally we considered the age at which patients with nasal polyps pay their first visit to the outpatients clinic for Allergy. An investigation by Varekamp and Voorhorst (1) revealed that in vasomotor rhinitis the eapk of the curve

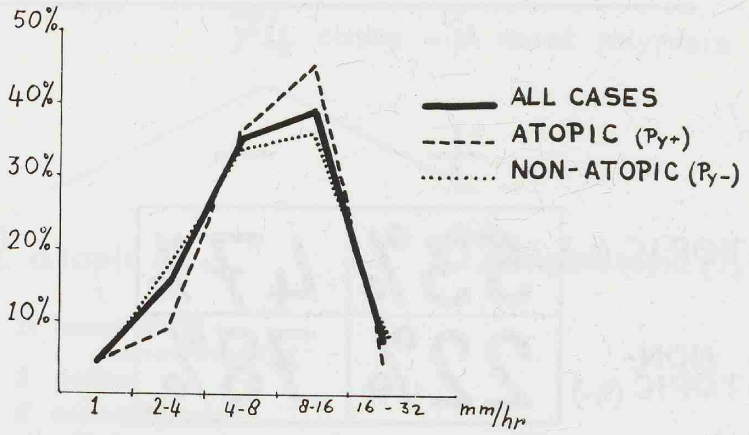

Figure 5.

POLICLINICAL VISITS OF 1131 CASES OF VASOMOTOR RHINITIS.

(VAREKAMP, H. and R. VOORHORST, 1964)

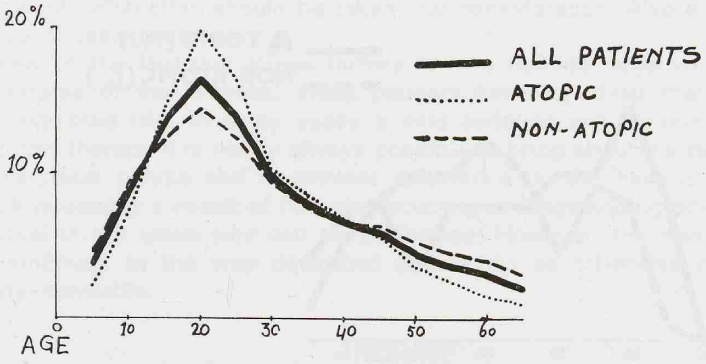

Figure 6.

of age distribution at the first visit is at 20 years (Fig. 6). Atopic and non-atopic groups are quite similar in this respect.
An analogous curve of patients with nasal polyps shows quite some difference (Fig. 7). We now get a curve with two peaks at respectively 20 and 40 years. Subdivision into atopic and non-atopic groups gives the following result (Fig. 8).

POLICLINICAL VISITS OF 72 CASES OF NASAL POLYPOSIS.

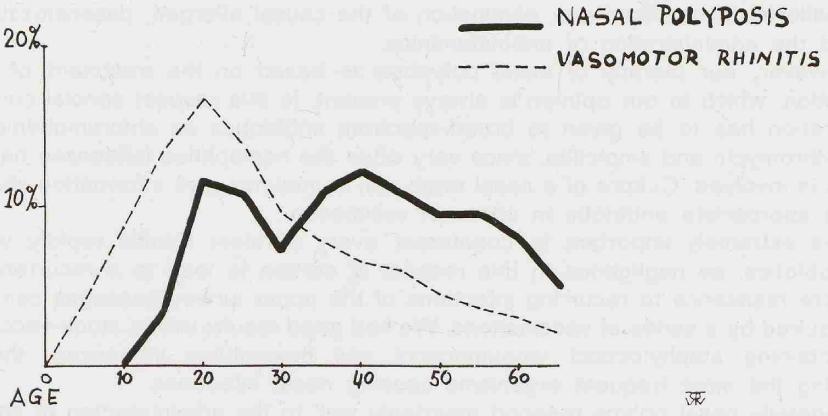

Figure 7.

POLICLINICAL VISITS OF 72 CASES OF NASAL POLYPOSIS.

SUBDIVISION INTO ATOPIC AND NON-ATOPIC CASES.

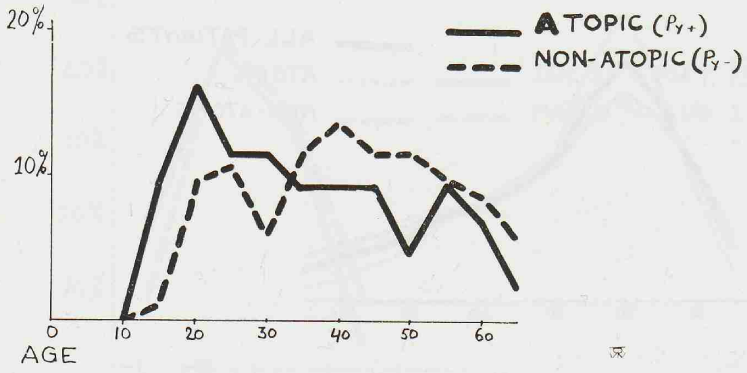

Figure 8.

It is suggested that nasal polyps appear at a younger age in atopic persons than in non-atopic persons. «L'allergie fait le nid à l'infection».

In conclusion we can state that these findings give the impression that nasal polyposis is primary an infectious matter. Atopy in itself is not the cause of nasal polyps, but it can stimulate infection which can result in the appearance of nasal polyps.

After these considerations a few words about the therapy of nasal polyposis may follow. We have come to the conclusion that a pharmacotherapy, if systematically maintained, makes polypectomy unnecessary in most cases. As a matter of course it is vital to exclude local diseases as foreign bodies and cancer of the nose and paranasal sinuses.

If an atopy is present, this has to be treated in the first place. Therapeutical measures to be taken are: elimination of the causal allergen, desensitization and the administration of antihistaminics.

However, our therapy of nasal polyposis is based on the treatment of infection, which to our opinion is always present. In this respect special consideration has to be given to broad-spectrum antibiotics as chloramphenicol, erythromycin and ampicillin, since very often the hemophilus influenzae bacillus is involved. Culture of a nasal swab can sometimes give information about the appropriate antibiotic in cases of resistance.

It is extremely important to counteract every purulent rhinitis rapidly with antibiotics, as negligence in this respect is certain to lead to a recurrence. More resistance to recurring infections of the upper airway passages can be acquired by a series of vaccinations. We had good results with a stock-vaccine containing staphylococci, pneumococci and hemophilus influenzae, these being the most frequent organisms causing nasal infections.

Generally nasal polyps respond amazingly well to the administration of small amounts of corticosteroids. The maximal dose we had to prescribe was 7½

mgrs of prednisone daily. Depending on the clinical response of the disease the dosage can be diminished gradually.
The therapy of nasal polyposis can be supported by the administration of vasoconstrictor agents as ephedrin taken orally or nasal drops, although the danger of habituation should be taken into consideration. Also antihistaminics can be of assistance.
In view of the fact that stress factors have a definite negative influence on the course of the disease, these patients have to adjust themselves to a well-regulated life; in many cases a mild sedation will be required.
With this therapy it is nearly always possible to bring about the disappearance of the nasal polyps and to prevent recurrence. In the case of persistence, which is usually a result of fibrosis occurring in longstanding polyps, surgical removal in the usual way can be performed. However, the treatment should be continued in the way described previously, as otherwise recurrence is nearly inevitable.

RÉSUMÉ

Nous avons étudié sur une série de 74 personnes souffrant de polypose nasale (—subdivisées en un groupe atopique et en un groupe non atopique —) l'éosinohilie du psang et des sécrétions nasales, la sédimentation sanguine et l'age du malade au moment du premier examen clinique.
Les résultats obtenus donnent l'impression que c'est une infection des muqueuses nasales, et non pas l'allergie en tant que telle, qui doit être tenue pour responsable de l'apparition de polypes du nez.
La therapeutique utilisée chez ces malades est ensuite brievement exposée.

REFERENCE

1. Varekamp, H. and Voorhorst, R.: Age and Sex in atopic and nonatopic Vasomotor Rhinitis. Acta All. 1964, XIX, 500—514.

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