



Rhinitis

Introduction

Rhinitis is inflammation of the nasal mucosa. It causes sneezing, rhinorrhoea, nasal congestion and loss of sense of smell. Infective rhinitis is well known to everyone as the common cold. Allergic and non-allergic rhinitis is discussed further below.

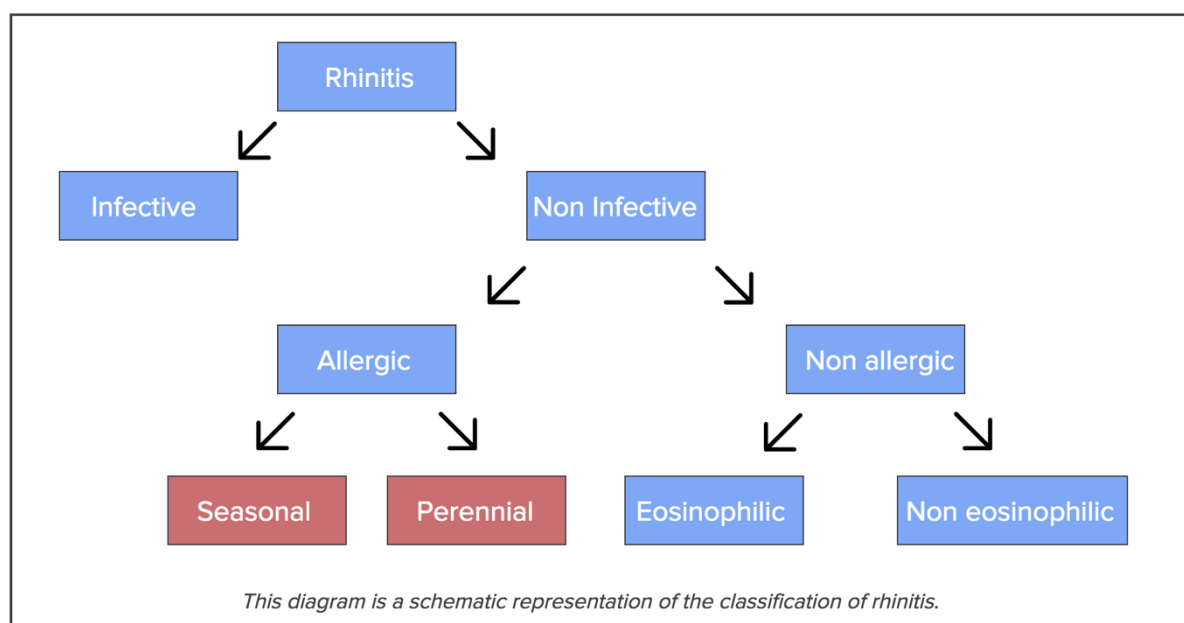
Allergic Rhinitis

Allergic rhinitis is an IgE mediated type 1 hypersensitivity reaction in the lining of the nose. It is common and the incidence is rising. There are other forms of rhinitis and a classification of rhinitis is found in the diagram below. Note that non-infective non-allergic rhinitis used to be called vasomotor rhinitis.

There are two types of allergic rhinitis: seasonal (Hayfever) and perennial. In the first the symptoms of the condition are present for a period of time and then go away; in perennial rhinitis they are always present.

Grass pollens are the commonest seasonal allergens but tree and fungal allergens are also found. House dust mite, cat and dog dander are the commonest perennial allergens.

The term vasomotor rhinitis covers the two terms at the bottom of the classification - eosinophilic and non-eosinophilic rhinitis.



N.B. There are miscellaneous other causes. The most important is Rhinitis Medicamentosa. This form of rhinitis is caused by drugs. Most notable are over the counter drugs such as oxymetazoline and xylometazoline. These are the active ingredients in Sinex and Otrivine and are used by patients who have a blocked nose to get decongestion and relief. They are very effective but, if used beyond about ten days, cause a rebound congestion and hypersensitivity in the mucosa. This is rhinitis medicamentosa.

Clinical features

The symptoms of allergic rhinitis are sneezing, nasal itching, clear nasal discharge and nasal obstruction. These occur on exposure to the allergen. In seasonal allergic rhinitis, these symptoms are pronounced during the summer and when the grass has been cut. People allergic to cats get the same symptoms when a cat is or has been, present in a room.

Physical signs include a pale, swollen, bluish nasal mucosa with thin, clear nasal discharge.

Note that although nasal polyps are sometimes found in allergic rhinitis it is not true that most polyps are of allergic origin.

Investigation

A history and clinical evaluation are very important in establishing the diagnosis. Laboratory tests must only be interpreted in the light of these.

There are two tests that are done routinely:

1. **Skin prick tests**
2. **RAST (a blood test)**

Skin prick testing is done by gently pricking the skin through a drop of purified allergen. This is usually done on the volar aspect of the forearm. Several allergens are tested at one time and the flare and wheal response compared with control substances. If an allergy is present a large flare and wheal will result under the test substance.

Skin testing is cheap and gives a quick result that the patient can see. It must only be done in places that have adequate resuscitation equipment as there is a very small chance of anaphylaxis.

RAST (radioallergosorbent test) is performed on a sample of venous blood. The details of this are not important. It is easy to do but takes time to give a result and is more expensive than skin testing.

Management

The principles of management are quite simple:

1. **Avoid the allergen**
2. **Use antihistamines by mouth or spray plus avoidance**

3. Use nasal steroid sprays plus avoidance
4. Use antihistamines and nasal steroids plus avoidance

The decision as to which form of therapy is used is dependent on the patient's response. If avoidance alone is inadequate then antihistamines should be tried as well. If this is inadequate change to nasal steroids plus avoidance and if this does not work all three therapies should be used.

Desensitisation can be done for patients in whom the above has failed or in those with life-threatening allergy e.g. to bee sting. It is a successful therapy but takes a long time to do.

Surgery can't cure allergy but it can relieve nasal obstruction when nasal steroids have failed.

Non-allergic Rhinitis

Simple put is rhinitis or inflammation of the nose and nasal cavity that isn't caused by an allergy. Inflammation causes blood vessels to swell and a build-up of tissues in the nasal cavity.

This inflammation is caused by two factors which can be divided into external and internal factors;

1. External factors include;
 - Viral infections, e.g. cold
 - Environmental factors; extreme temperatures, humidity or exposure to irritants such as some
2. Internal factors;
 - Hormone imbalances such as pregnancy
 - Hormone replacement therapy (HRT)

Symptoms

- Nasal obstruction
- Rhinitis per nostril or down the back of the nose (catarrh)
- Sneezing
- Reduced sense of smell

Rarely crusting can form and result in

- Foul smelling odour (if it becomes infected)
- Cause bleeding (secondary to patient picking or removing the crusts)

Management

1. Avoiding triggers
2. Self-care measures e.g. nasal douching
3. Severe cases may require nasal steroid sprays (as above)