Nasal Discharge (Rhinorrhoea)

Remit

Nasal discharge is a sign and symptom of all causes of rhinitis. It also occurs in tumours of the nose and in CSF rhinorrhoea. Below is a short guide to nasal discharge and its causes.

Rhinitis

Rhinitis is an inflammatory condition of the nasal mucosa. There are several causes for this inflammation and the three most important are listed below:

1. Infective rhinitis
2. Allergic rhinitis
3. Vasomotor rhinitis (an old term)

In infective rhinitis when the cause is viral the nasal discharge is typically thin and clear. This changes to a thicker clear mucus after a few days and then turns creamy / green as bacterial superinfection sets in. The discharge passes to the post nasal space and is swallowed or is blown out of the nose.

There is another form of infective rhinitis in children, usually. When a foreign body (especially organic, paper or foam) has been pushed up the nose by a child it provokes bacterial infection within the nose. This causes a unilateral purulent nasal discharge that is often foul smelling. Indeed, a unilateral discharge in a child must provoke a search for a foreign body. This may be done under general anaesthetic if necessary.

In allergic rhinitis, the discharge is thin and provoked by an allergen e.g. grass pollen. However, it may be present all year if the allergen is present throughout the year e.g. house dust mite.

Vasomotor rhinitis causes a thin discharge that is provoked by smoke, perfume, cold air and many other irritants.

Tumours

Tumours in the nose are extremely uncommon. When they do occur, they tend to produce a thin, blood-stained discharge.

CSF Rhinorrhoea

CSF leaks into the nose from the ethmoid or sphenoid sinuses, the cribriform plate and from the ear via the Eustachian tube. Generally, it follows trauma such as in a Road Traffic Accident but may be a sequel of sinus surgery. Often it is idiopathic.

The discharge is thin and clear. It is made worse by bending and straining and it may be unilateral.

Testing for it can be difficult because of the small volume that is often present. Tests of glucose concentration used to be important but now assays for beta 2 transferrin are available.

Localising the leak requires intrathecal fluorescein which can be seen to ooze into the nose from the site of the leak. CT scanning is usually performed as this may show the site of the leak and assists in surgical planning.

Treatment of CSF leak is beyond the remit of this tutorial. Most patients will receive pneumococcus vaccination as a preventative measure. They can be given laxatives to reduce straining and they are advised not to do any heavy lifting.

If hospitalised they are nursed upright and may have a lumbar drain placed.