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DEALING WITH "SINUS" TROUBLE

MANY PATIENTS VISIT THEIR DOCTOR COMPLAINING OF A SINUS PROBLEM. IN THE MIND OF THE

patient, this is a diagnosis. Upon clinical investigation, the situation is often far more complex and refers to a combination of nasal obstruction, nasal discharge, sneezing and maybe some facial discomfort, which is recurrent and on a prolonged basis. "Sinus" is not a diagnosis, so as a specialist, I need to dissect this symptom complex to ascertain exactly what the patient means. The majority of cases are due to either allergic rhinitis or inflammatory sinus disease, like sinusitis.

From 10 to 20 per cent of the general population in Singapore have symptoms of a "sinus" problem. Most are due to allergic rhinitis and a significant percentage are due to inflammatory sinus diseases such as sinusitis. Sinusitis is generally under-diagnosed in the general population as most patients or even general physicians, without the aid of a nasal endoscopic examination or a CT scan of the sinuses, attribute all the symptoms to an allergic rhinitis. It is difficult at times to differentiate allergy from infection from just the history and a basic ENT examination.

The major problems of chronic sinusitis include: chronic eustachian tube dysfunction, which leads to blocked ears; otitis media; chronic post nasal drip; chronic laryngitis and chronic bronchitis. Infected mucopus from the sinuses, as it drains backwards in the form a post-nasal drip, would exacerbate a patient with bronchial asthma or bronchiectasis.

In the pre-antibiotic era, or if patients are immuno-compromised, the infection within the boundaries of the bony sinuses could erode bone, leading to eye complications or even brain complications and meningitis. The orbit is surrounded by the maxillary sinus, ethmoid sinus and frontal sinuses. Hence, erosion of the bone separating the sinus from the orbit could lead to serious eye complications. Similarly the posterior part of the frontal sinus is related to the anterior cranial fossa and frontal lobe of the brain and erosion of this bony partition would lead to intracranial complications. The most serious complications can arise from chronic sphenoiditis, which is located beneath the central part of the brain. Erosion of sphenoid sinus bone could lead to a cavernous sinus thrombosis, eye complications and intra cranial complications and potential death.

The symptoms of a "sinus" is a symptom complex of nasal obstruction, rhinorrhea, post nasal drip, sneezing (especially in the morning and when exposed to any temperature change) and itchy eyes. In Singapore it is perennial in nature because we do not have seasons. The symptoms are exacerbated when precipitating factors like house dust mite allergy, or dogs and/or cats are present. A sudden temperature change can also provoke an allergic exacerbation. A patient who has a chronic allergic rhinitis is more susceptible to having a sinus infection after a common cold and if not treated adequately, it may lead to a chronic sinusitis and its sequelae.

Allergic rhinitis has a hereditary component. Sinusitis is not hereditary, but an acquired condition. In allergic rhinitis there is a provocating factor eg; an aero-allergen allergy or a food allergy, leading to an exacerbation of the immune response of the body. The result is that the lining of the nose is inflamed and swollen and secretions are produced. If the swelling of the lining of the nose is severe, it obstructs the natural openings of the sinuses and this then leads to a sinusitis.











TOP DOWN: NASOENDOSCOPIC EVALUATION, SKIN PRICK TEST, EVALUATION OF CT SINUS, ENDOSCOPIC SINUS SURGERY

To treat chronic allergic rhinitis we must identify the offending allergen. This is done from from taking a thorough patient's history or by using a skin prick test for an aero-allergen allergy test. The patient can also maintain a food diary, where we remove certain foods from the diet as a process of elimination and subsequently challenging them. Allergen avoidance is the principal treatment in the management of chronic allergic rhinitis. However, in many instances, one is unable to ascertain the allergen and we will then have to treat the nasal inflammation empirically.

The standard treatment of chronic allergic rhinitis is then to use a topical intranasal steroid spray on a daily basis. It will take a week for the spray to work and if the patient has a pure allergic rhinitis, the success rate is over 95 percent.

If there is a single allergen specific chronic allergic rhinitis, sublingual therapy or immunotherapy can be offered. The decision will be up to the patient, whether he would prefer to have a long term nasal spray, have allergy shots or sublingual immunotherapy.

Surgery can be performed if the patient does not respond to the above treatments. If there is evidence of irreversible hypertrophy of the inferior turbinate or the presence of a deviated nasal septum, there is a definite role for inferior turbinate surgery in addition to septoplasty to correct the septum. This two procedures are done at the same time transnasally.

In acute sinusitis, the response is excellent with an adequate dosage of an appropriate antibiotic, in addition to nasal decongestants and in severe cases a short course of steroids. In chronic sinusitis, surgery is recommended after failure of maximal medical therapy. The gold standard is that of endoscopic sinus surgery with a pre-operative CT scan of the sinuses to identify the sites pathological obstruction. In certain selected cases, balloon sinuplasty will also help. These are minimally invasive surgical techniques with excellent results.

As we can see, "sinus" problems such as allergic rhinitis are not life-threatening. However, it should be taken seriously as it can affect performance at work and at play. Waking up in the morning sneezing away, with a nose that is blocked and watery is irritating and embarrassing. With chronic nasal obstruction, the patient's sleep is affected at night, leading to snoring and Obstructive Sleep Apnea Syndrome (OSA Syndrome). OSA impairs the patient's performance during the day, leading to lower productivity.

There are ways to try and prevent experiencing "sinus" problems, even after medical treatment. If the offending allergen is a house dust mite, steps can be taken to try and dust-mite-proof one's bedroom, by avoiding fabrics and using special materials to cover the bed, pillows and blankets. If the allergen is related to a specific dog or cat, avoidance of these pets would be an obvious method. There are special sprays for the dog to lessen the dog shedding its skin scales, which is a potent allergen.

Overall, patients suffering these conditions should remain optimistic, as a combination of successful and proven medical treatment, combined with preventive methods, can often result in satisfactory outcomes.

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