

The curious *relationship between* **sinusitis and allergy**

A persistent stuffy nose could be nose allergy or sinusitis or a combination of both, and they are often confused with one and another. Even though their symptoms are very similar, the treatment involved is very different. **Dr. Ralph Stanley** - ENT Surgeon at Gleneagles Hospital outlines the differences between these two ailments and also the treatment options

Mr. Chua, 67, found blood traces each morning when clearing his throat and brushing teeth, for four long months. He dismissed it as just his sensitive nose acting up at first and did not do anything about it. But when the symptoms persisted, he consulted Dr. Ralph Stanley.

On further examination and judging from the X-ray, Dr. Stanley discovered that Mr. Chua had an inflammatory mass in his sinus region which necessitated removal. He subsequently underwent an endoscopic sinus surgery for fungal polyps and sinusitis.

Sinusitis is very common in Singapore and about 20 to 25 percent of the general population may have some form of sinus infection at any point in time. However, sinusitis is generally underdiagnosed because patients think that they may have a recurrent head cold rather than a chronic recurrent sinusitis. Nasal allergies also mimic and overlap in the clinical presentation.

What is sinusitis?

Sinusitis describes a condition where one's sinuses become inflamed, are unable to drain as a result of blockage of the natural openings of the sinuses from allergies and infections. This is normally the result of either a bacteria, viral or fungal agents causing an inflammation in the sinuses. Dr. Stanley explains: "The triggers to this sinus infection are usually the result of viral infection of the upper respiratory tract due to a

head cold or the result of an exacerbation of chronic allergic response leading to total obstruction of the sinuses. This then, is the perfect situation for secondary bacterial infection to set in, leading to sinusitis."

Dental root canal infection can also lead to bacterial dental sinusitis. The roots of the molar teeth are in direct contact with the sinuses within the cheek bones, and any root canal infection can easily spread to the sinuses leading to an acute sinusitis.

What is the relationship between sinusitis and allergy?

Sinusitis is not an allergy but a specific disease whereby there is an inflammation of the mucosal lining of the paranasal sinuses from a bacterial, viral or fungal agent; whilst allergies are disorders of the immune system which is the result of an overreaction of the body's immune system to foreign substances such as dust mites.

Allergies can make a patient more susceptible to sinusitis but not the other way round. When a patient has a nasal allergy, also known as a "sinus problem", the nose lining are already swollen. If a patient gets a viral infection as in a head cold, this leads to further swelling of the nasal mucosa leading to total obstruction of the paranasal sinuses. Under these conditions, bacterial infection can easily occur, leading to an acute or chronic sinusitis.

Acute sinusitis lasts under four weeks and sub-

acute sinusitis is within four weeks to 12 weeks. If the symptoms persist for more than 12 weeks, it will be classified as chronic sinusitis.

How to treat and prevent sinusitis?

While those who already had a nasal allergy have a higher chance of having sinusitis, anyone can get it too. Sinusitis can manifest as young as infants up to adulthood and old age. "If there is no predisposing cause, it is usually an acute sinusitis and responds well to a course of antibiotics and nasal decongestants," said Dr. Stanley.

The response to medical treatment in chronic sinusitis is not as good as acute sinusitis and depends on the duration and other aggravating factors like allergies and mucosal problems. One has to consult an ENT specialist whereby the predisposing causes to sinusitis have to be determined first. For example, the treatment and prevention of nasal allergy and stuffy nose have to be managed together with an appropriate treatment of the sinus infection. The patient has to stop being exposed to the offending allergens. Cigarette smoke also aggravates or predisposes to sinus infection.

If the patient is allergic to house dust mite, then there should be no fabric curtains, fabric furniture or carpets in the bedroom and everything on the bed should be wrapped by special material. If the patient has dog and cat allergy, it is advisable not to keep a cat, or to use sprays that may reduce the allergen load of a dog's skin into the air.

The most common medication for long-term treatment of nasal allergies is intranasal steroid sprays. These are topical nasal sprays which are hardly absorbed into the body and hence, can be used safely for an extremely long period of time. This is usually prescribed together with antibiotics should there be an infection.

Surgery is the last resort for those whose conditions cannot be alleviated by medication. Endoscopic sinus surgery, a minimally invasive procedure, aims to drain and reventilate the sinuses. It is done on general anaesthetic by a transnasal route without any external

facial incision. The obstructed sinuses are widened by removal of bone and diseased mucosa and preservation of normal mucosa.

The latest development is in balloon sinuplasty. Under an image guidance or illumination technique, a catheter or tube is inserted into the sinuses. There is a balloon at the end of the tube and when inflated under pressure leads to micro fractures of the bone around the obstructed ostium of the sinuses. This widens the obstructed opening of the sinuses.

Says Dr. Stanley: "To date, it is perhaps suitable only for 10 or 20 percent of patients with chronic sinusitis. The choice of the candidate for a balloon sinuplasty has to be very stringent for optimal results." It is done under general anaesthetic and sometimes there is a combination of both balloon sinuplasty and functional endoscopic sinus surgery. The choice of the procedure would depend on the sinus condition surgeon and the availability of instrumentation and technique. [P](#)

