

TACKLING PROBLEMATIC SINUSITIS

One of the most common condition that affects us all.

The inflammation of the paranasal sinuses is known as sinusitis. Since sinusitis rarely occurs without a preceding episode of rhinitis and the interrelationship between sinusitis and rhinitis, nowadays clinicians refer to sinusitis as rhinosinusitis.

SUMMARY – SINUSITIS VS RHINOSINUSITIS

SINUSITIS VS RHINOSINUSITIS	
The inflammation of the paranasal sinuses is known as sinusitis. Is most often associated with upper respiratory tract infections and asthma.	Rhinitis is the inflammation of the mucosa overlying the nasal cavity.
CAUSE	
Sinusitis is most of the time caused by bacteria such as <i>Streptococcus pneumoniae</i> and <i>Hemophilus influenza</i> . In rare cases, fungi can also give rise to this condition.	Rhinitis can be due to the exposure to allergens in which case it is known as allergic rhinitis. Non-allergic rhinitis is often caused by infectious agents.
BEHAVIOR	
Clinical features of sinusitis: <ul style="list-style-type: none"> • Headache • Purulent rhinorrhea • Facial pain with tenderness • Fever 	Clinical features of rhinitis: <ul style="list-style-type: none"> • Tiredness • Slight pyrexia • Malaise • Sneezing • Profuse watery nasal discharge
TREATMENT	
Bacterial sinusitis can be treated with nasal decongestants and antibiotics such as co-amoxiclav. Anti-inflammatory drugs are sometimes used to alleviate the discomforts due to mucosal swellings. <ul style="list-style-type: none"> • In case of recurrent sinusitis and if any complications arise, it is appropriate to take a CT scan. • Functional Endoscopic Sinus Surgery is required rarely for the ventilation and drainage of the sinuses. 	Rhinitis is treated with: <ul style="list-style-type: none"> • Allergen avoidance • H1 antihistamines- commonest therapy (ex: Chlorphenamine, Hydroxyzine, Loratidine, Desloratadine, Cetirizine, Fexofenadine) • Decongestants • Anti-inflammatory drugs • Corticosteroids- most effective • Leukotriene

A quick conversation with Dr Azlina Saaban, Consultant ENT Surgeon, Columbia Asia Hospital – Cheras on the causes and treatment of sinusitis.



1. Are sinus infections caused by bacteria or a virus?

- Sinus infection is infectious to the sinuses
- If it is a viral origin, it is contagious
- If it caused by bacteria, usually it is not contagious
- Sinusitis is inflammation of the sinus wall
- It could be due to allergy irritation fumes which is not contagious

2. What is the difference between sinusitis and common cold?

Sinusitis is inflammation of the paranasal sinus wall and presents almost similar to common cold like feverish, running nose, block nose, headache. Usually common cold lasts for a few days whereas sinusitis lasts longer like few weeks.

3. What allergies and pollutants that can lead to sinus infections?

The commonest allergen is house dust mites which can cause rhinitis and which later may lead to sinusitis. Any air pollutants can cause sinusitis thru the airway, whereas water pollutants, for example for swimmers, can lead to a similar problem.

ALLERGIC RHINITIS

Is defined as nasal discharge or blockage and sneezing attacks that last for more than an hour on most of the days due to an allergen. It can be of two types: seasonal or intermittent rhinitis which occurs during a limited period of the year and perennial or persistent rhinitis which occurs throughout the year.

4. Survey data confirm a remarkable overuse of antibiotics for acute sinusitis that is most likely viral rather



COMMON COLD (NONALLERGIC RHINITIS)

A variety of respiratory viruses such as rhinovirus (the most commonest), coronavirus, and adenovirus can cause this highly infectious illness. The disease characteristics are limited to the upper respiratory tract because the virus grows well at 33°C which is the local temperature of the upper respiratory tract. The transmission is mainly through close personal contact (nasal mucus on hand) or respiratory droplets.

than bacterial. Your advice?

Antibiotic is prescribed if the sinusitis is of bacterial origin and the patient has mucopurulent discharge. And the discharge starts to change colour from thick yellow to green, has a fever, headache, etc.

5. When do you recommend nasal irrigation for sinusitis?

I recommend for all cases of sinusitis to do nasal irrigation even from the beginning of acute sinusitis e.g. whenever the patient feels as having a blocked nose or when there is mucus in the nose.

6. What are the preventive measures for recurrent sinus infections?

- Avoidance of anything that the patient thinks he/she is allergic to, e.g. certain food, cats, dust.
- Use a mask or avoid dusty/smoky area.
- Avoidance of fluffy/soft toys for children.
- Avoid using of carpets or any dust collecting material.
- To use proper pillow and bed cover to avoid exposure to house dust mite.
- To use an air filter.
- Compliance to medication, e.g. steroid nasal spray, antihistamine, and sinus rinse as prescribed by a qualified doctor.

7. Can over-the-counter medications be considered as the first line of treatment?

Yes, some medication, e.g. antihistamine, sinus rinse, and some nasal sprays.

8. Identifying the root cause for the infection should be the first line of treatment for sinus infections. Your views?



Treatment over the counter first is acceptable before we investigate further. If the problem persists or recur, then we need to further check/examine the patient by doing endoscopic examination or imaging.

9. Would you recommend taking the annual flu shot as a preventive measure for senior citizens?

The flu vaccine is to prevent influenza infection and not for sinusitis.

10. What practical test is available to diagnosis chronic rhinosinusitis?

Endoscopic examination of the nose.
CT scan of the paranasal sinus.
An allergy test may help to determine the allergen.

SURGICAL PROCEDURES

FESS (Functional endoscopic sinus surgery)	A minimally invasive surgical treatment which uses nasal endoscopes to enlarge the nasal drainage pathways of the paranasal sinuses to improve sinus ventilation.
Septoplasty	A surgical procedure to straighten the bone and cartilage dividing the space between the two nostrils (septum).
Turbinoplasty	An operation performed to reduce the size of swellings (turbinates) that are present on the side wall of the nasal passageways.

11. Rhinosinusitis is a common illness. What's the diagnostic and management challenge to the doctor?

Diagnosing rhinosinusitis is based on patient symptoms and clinical examination findings. Endoscopic examination is important to visualise the condition of the nose, e.g. appearance of the mucosa, presence

of polyps or discharge, condition of the septum and turbinates. Further test by doing the CT scan to see the whole view of the paranasal sinuses may be needed.

Conservative management of rhinosinusitis is by using sprays, sinus rinse, antihistamine, montelukast, and antibiotic. Surgery include FESS,

ACUTE VERSUS CHRONIC RHINOSINUSITIS

CLASSIFICATION	DURATION	SYMPTOMS
Acute Rhinosinusitis	Lasts less than 12 weeks	Most cases caused by viral infections associated with common cold. Symptoms include nasal congestion, cough that usually worse at night, sore throat, facial pain, pressure, or fullness (pain on bending forward), headache, toothache or/and fever,
Chronic Rhinosinusitis	12 weeks or more	Combination of nasal congestion, facial pain, headache, night-time coughing, an increase in previously minor or controlled asthma symptoms, general malaise, thick green or yellow discharge, feeling of facial fullness or tightness that may worsen when bending over, dizziness, and/or aching teeth.

septoplasty, turbinoplasty help to have better space to the nose and to the sinuses.

The challenge is when the problem is recurrent despite the treatment. It can be in relation to the patient's compliance with the medication and unavoidable environmental problem that triggers for the patient, e.g. the housing area or workplace.

12. Is asthma a dominant factor for recurrence in chronic rhinosinusitis?

Asthma is related to allergy and allergy is related to sinusitis and nasal polyps. Thus, allergy plays a more important role.

Did you know

Most cases of acute rhinosinusitis are viral in origin and symptoms usually resolve within five to seven days.

13. What other comorbid diseases and conditions are associated with chronic rhinosinusitis?

Allergic rhinitis, asthma, and chronic bronchitis.

14. What are the recommended medical treatments for chronic rhinosinusitis?

- Decongestant nasal spray
- Steroid nasal spray
- Mucolytic agent
- Oral steroid (short course)
- Sinus rinse
- Antibiotics

15. When is surgery an option for chronic rhinosinusitis?

- When the symptoms persist despite optimum medical treatment.

- When a complication arises e.g. infection to the eyes, brain abscess.
- When there is medical obstruction, e.g.:
 - deviated nasal septum
 - presence of polyps obstructing the sinus ostium

16. What are recent advances in medicine that show promising interventions for chronic rhinosinusitis in the future?

- It is still FESS.
- Other like balloon sinuplasty still has its own limitation.
- However, we cannot ignore the medication and avoidance factor, as mentioned before play an important role.
- Recurrence may still occur, which we don't know when. **IM**

COLUMBIA ASIA HOSPITAL – CHERAS

Is a multi-specialty hospital located in the Cheras Selatan township and provides healthcare services for the Cheras Selatan community as well as residents in Balakong, Sungai Long and Kajang.

The multi-disciplinary hospital is well-equipped with modern medical facilities, highly experienced doctors in their respective disciplines, caring nurses and teams of highly trained and committed staff.

Specialties offered at the hospital include Cardiology, General Surgery, Internal Medicine, Obstetrics and Gynecology, Pediatrics, Radiology and Urology.

