## Clinical case review

# An older man with severe sinus problems

Commentary by RONALD S. WALLS AM, MB ChB, DPhil(Oxon), FCP, FRACP, FRCPA

This patient should be referred for both medical and surgical assessment because of the severity of his symptoms and the effect it is having on his activities of daily living.

#### Case scenario

Ken is a 69-year-old office worker who has had 'sinus problems' all his life. When he was a child he also suffered from asthma. He presents to his GP reporting that he has constant problems with a blocked nose, has nasal speech, snores, frequently has sinus-associated facial pain, and often develops attacks of acute sinusitis. He says that courses of antibiotics give him a degree of temporary relief, but that he has abandoned the use of nasal sprays because they always make his nose bleed. He also says that antihistamines have helped him a little, but he did not like the idea of taking tablets every day and it was also too expensive to buy nonsedating antihistamines on his modest salary.

About 20 years previously, Ken had undergone some form of sinus surgery but this had only relieved his symptoms for a couple of months. He now feels that his general health is suffering, and he feels chronically tired and often unwell. He asks if anything else can be done for him. What would be the best approach for Ken?

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### **Commentary**

It is likely that Ken's long-standing problems have by now caused some structural changes in his nasal and sinus mucosa. Obstruction of drainage from the sinuses leads to chronic infections and damage to the sinus mucosa. Excessive use of decongestant nasal preparations can damage the nasal mucosa, irreversibly in the worst cases. Nevertheless, thorough assessment and treatment can still lead to significant symptomatic improvement.

#### Diagnosis

The presumptive diagnosis for Ken is chronic rhinosinusitis; however, it is not vet known whether or not he has nasal polyps. He requires a concerted approach to define the intranasal and sinus pathology, and to identify any allergic factors. If allergy is neglected, any success from surgery to correct the underlying pathology will be short lived. This may be why his previous surgery gave him only temporary relief from symptoms.

#### History

My first step would be to elicit further details from his history; his childhood asthma suggests that he is an allergic subject, and so he may have suffered from hay fever as a young person. Sometimes, secondary changes in the nose and sinuses obscure the role of potential allergy provoking factors and their role may become apparent only after treatment has been started. I would ask about



any other medications that Ken may be taking - for example, aspirin and NSAIDs are associated with nasal polyps as part of the aspirin hypersensitivity syndrome, and β-blockers and some other antihypertensives can aggravate nasal congestion.

I would try to find out what sort of nasal sprays Ken has previously used and how he used them. Nasal decongestants give quick relief but their continued use results in mucosal rebound and damage. Intranasal corticosteroids are not listed on the PBS and their continued use is a significant expense. For this reason, and also because of a widespread misunderstanding of how they work, they are often used only for immediate relief of symptoms. This is a common reason why they are perceived to be ineffective and their use abandoned.

#### **Examination**

Next, I would examine Ken's nose. Even anterior rhinoscopy can give useful information. Polyps may be visible and it is more than likely he has an altered anatomy because of his previous surgery. A CT scan of his paranasal sinuses may be necessary. Plain radiology is not worth doing because the resolution is so poor that the details cannot be made out.

#### Approach to treatment

I would refer Ken for both medical and surgical assessment because of the severity of his symptoms and the effect it is

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continued

having on his activities of daily living. Ken will need rhinoscopy and a full allergy assessment. Ideally, this is best carried out in a combined clinic attended by an ENT surgeon and allergist; however, such a facility may be difficult to find, so I would refer him to both specialties.

The allergist would take a detailed history and look for evidence of sensitisation to environmental allergens such as house dust mite, moulds and animal danders. The allergist would also advise on allergen avoidance measures and the correct use of intranasal corticosteroids. Simple measures such as intranasal saline, menthol and eucalyptus inhalations, and antihistamines are very helpful and their use can mitigate the expense of intranasal corticosteroids.

If polyps are present the allergist may elect to try medical therapy before resorting to surgery. Patients with polyps sometimes respond well to a short course of oral corticosteroids, with high-dose intranasal corticosteroids started at the same time and continued after stopping the oral corticosteroids. Montelukast is sometimes an effective adjuvant treatment but it is expensive. If there is good evidence for house dust mite allergy, the allergist would most likely recommend immunotherapy, either by subcutaneous injections or sublingual drops.

The ENT surgeon may suggest functional endoscopic sinus surgery (FESS) to remove mucus and secretions, and restore adequate sinus drainage. Patients with nasal polyps may respond to medical treatment, but eventually the polyps often need to be removed surgically. The problem is that they are likely to regrow fairly rapidly unless steps are taken to prevent this – for example, by using high-dose intranasal corticosteroids and by attending to underlying allergic factors.

Any surgical procedure performed on

Ken needs to be followed up with ongoing treatment. The allergist can play a valuable role by ensuring ongoing treatment with adequate doses of intranasal corticosteroids, saline and antiallergy measures. Modern approaches may incorporate the use of topical antibacterial agents such as mupirocin, high-dose intranasal corticosteroids, other measures to treat bacterial biofilm or antifungal therapy if there is evidence of chronic fungal sinusitis.

#### Conclusion

These chronic sinus problems, although not life threatening, exact a considerable toll on quality of life. Ken should be given the benefit of a comprehensive approach and be supported to continue with therapy. He should be reassured that improvement in his symptoms is possible.

COMPETING INTERESTS: None.