



Managing Allergy Patients:

Perspectives from a GP and a Specialist

Dr Ang Seng Bin, a GP, and Dr Samuel Yeak, a specialist, share their views on managing patients with eczema and allergic rhinitis respectively.

Eczema

By Dr Ang Seng Bin

My patient John

"Hey John! Don't rub your nose. Again! How many times must I tell you not to rub?" yelled an exasperated lady in my clinic waiting area one afternoon. "Stop scratching! Put your hands in your pocket! Quick, it's our turn now. Don't keep Dr Ang waiting..."

John (not his real name), aged ten, had been seeing me for his atopic eczema and allergic rhinitis for the past few years. Previously, I found out that John had atopic eczema since he was four. At that time, his condition was mild. He had flare-ups about four times a year whenever he contracted upper respiratory tract infections. Between the ages of six to eight, John's condition had been well controlled. The frequency of exacerbation decreased to about once a year, and his rashes usually resolved within a week with topical steroids.

However, John's skin problems had worsened since the beginning of this year. His quality of life was badly affected. He had difficulties falling asleep at night, as the itch frequently kept him awake. Because of his disrupted sleep, he had trouble concentrating in class, and during tests and examinations. As a result, his schoolwork suffered and his results plummeted. Meanwhile, his mother found looking after him very stressful. Every day, John shed flakes of skin excessively, so she had to clean the floor of their home constantly. She also had to supervise closely what he consumed. Well-meaning friends and relatives had told her not to give John seafood and eggs, which they believed caused his eczema. In desperation, she put him on a vegetarian diet.

That day, upon examination, I found that John had moderately severe eczema with chronic signs of atopic eczema such as lichenification affecting the neck, flexures of the limbs, as well as extensive excoriation over the trunk and limbs.

John also appeared quite withdrawn, so I decided to interview him and his mother separately to determine the triggers for the relapse. When we were alone, John softly told me, "Dr Ang, I have to share with you a secret. Promise me you won't tell my mother?" I nodded in quiet agreement.

"I am very frightened. I am scared I might lose my parents."

"Why?" I replied, looking puzzled.

"Dr Ang, my mama has been scolding my papa the last few months. Recently, my papa even yelled at mama till she screamed. She sounded like she had gone crazy. I am scared papa may beat mama up. Or mama or papa might run away from me."

Apparently, the trigger of John's affliction was dysfunctional family dynamics. John's parents had been frequently quarrelling lately, and their marital relationship was poor. As a result, John became more distant from his father. As his eczema worsened, his father avoided him even more. This vicious cycle appeared to have a detrimental effect on John's condition.

His experience in school was not cheery either. He was bullied because of his skin ailment. Certain groups of students called him names and poked fun at him. His friends shunned him. He felt isolated, which in turn damaged his self-esteem. Because of that, he refused to go to school and missed lessons for almost a month.

Negative impact of eczema

Atopic eczema is a chronic relapsing inflammatory disease affecting the skin. The prevalence of atopic eczema in Singapore children ranges from 17.9% to 22.7%.¹ When children suffer from this disease, it not only affects them, but also their caregivers' quality of life. Studies have shown that the impact of atopic eczema on families is significantly greater than that of diabetes mellitus.² This includes sleep deprivation, time spent taking care of children, absence from work, loss of employment and marital issues.

It is increasingly recognised that defects in the skin barrier function is a crucial factor in the disease process with regard to atopic eczema. Factors that affect the skin barrier function can be extrinsic or intrinsic. Extrinsic factors include: environment, scratching, allergens, infections (eg, *Staphylococcus aureus*), and psychological stress; while intrinsic ones include: genetic predisposition and innate immunological disturbances.

It is increasingly recognised that in atopic dermatitis, the defect in skin barrier function is a key factor in the disease process. The faulty barrier function increases trans-epidermal water loss, and also allows for easier penetration by allergens and irritants. The subsequent colonisation by *Staphylococcus aureus* further aggravates the disease process by the augmentation of immunoglobulin E production. In turn, microbial colonisation and infection further worsen the barrier function defect.³ Hence, eczema management should not be limited to reducing inflammation, but also include correcting the skin barrier function.

Biopsychosocial approach to treatment

A biopsychosocial approach to the treatment of atopic

eczema is key in the management of the disease in many patients, as illustrated by the case mentioned above.

John was eventually treated with topical corticosteroids, soap substitutes and the regular use of emollients. As his itch was adversely affecting his sleep, sedating antihistamines were prescribed to improve his night-time rest.

A social worker was involved in exploring his psychosocial issues at home and in school. Family counselling helped the parents understand the repercussions of their quarrels on John's health. School counsellors were also enlisted to work on the issue of school avoidance with John and his family.

Two months later, John was overjoyed that his condition finally came under control and he could participate in the sports he used to enjoy. While the situation between his parents did not change greatly, John's father started spending more time with him, and their relationship had improved tremendously. The bullying in school had also ceased and he had not missed school since. Since John's eczema had improved, his mother realised that certain foods were not the driving factors of his affliction. He was therefore allowed to consume his favourite dishes, including fried prawns, and this had not exacerbated his skin condition.

Conclusion

Holistic management of atopic eczema, taking into account patients' biopsychosocial issues, is the cornerstone

to successful treatment of the disease. Food allergy is not a common cause and trigger of atopic eczema in patients beyond the age of one. Many children suffer unnecessarily from severe diet restrictions. ■

References

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Allergic Rhinitis

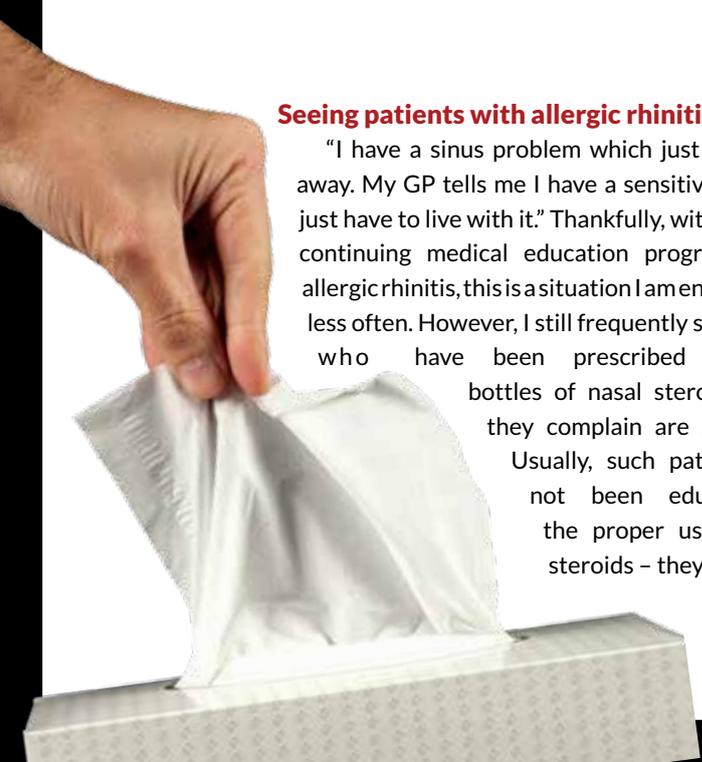
By Dr Samuel Yeak

Seeing patients with allergic rhinitis

"I have a sinus problem which just doesn't go away. My GP tells me I have a sensitive nose and just have to live with it." Thankfully, with the many continuing medical education programmes on allergic rhinitis, this is a situation I am encountering less often. However, I still frequently see patients who have been prescribed expensive bottles of nasal steroids, which they complain are ineffective. Usually, such patients have not been educated on the proper use of nasal steroids – they need to be

used regularly and it takes time for them to work. I suspect the poor GPs are usually far too busy to spend much time educating patients and answering a billion questions allergy sufferers usually ask. Of course, many patients are concerned that their condition is serious, and a few do indeed have nasal polyps and true sinus problems.

In this respect, the ENT surgeon has two advantages over the GP. He has the tools (like the nasoendoscope) to more thoroughly assess and therefore reassure patients. He also generally has more time to educate them and therefore can usually send away the toughest ones happy, often with the same medications prescribed by the GP! This allows an excellent collaboration with the family doctor to provide long term care to patients for this chronic disease.



Misconceptions about this allergy

The ARIA (Allergic Rhinitis and its Impact on Asthma) guidelines do stress that allergic rhinitis is a chronic disease. So the GP who said that it is not going to go away is partially right, but having to live with it is a misconception. As with all chronic diseases, there can be excellent control by employing the right strategies.

The main cause of misconceptions lies with patients' failure to grasp the concept of needing to control a chronic problem. Patients with diabetes and hypertension generally understand that they need to take regular medication to control their blood sugar level or blood pressure, and do not talk about dependence on medication. These chronic conditions can lead to severe complications like blindness and stroke if left uncontrolled, even though they are often asymptomatic in the early stages. Allergic rhinitis, on the other hand, is a very symptomatic condition, but is generally quite safe to be left alone unless complicated by sinusitis. Sinusitis can of course be occasionally aggravated by infections spreading to the eye or brain. With proper exercise and diet, some patients with diabetes and hypertension may be able to attain good control of their illnesses without medication. Similarly, with allergen avoidance, some patients with allergic rhinitis may not need long term nasal steroids. Generally, with good environmental control, doctors usually try stopping medication after two to three months. So it is untrue that once patients start on nasal steroids, they have to continue using them forever.

Patients often mistakenly believe they may become dependent on nasal steroids. This stems from their confusion of nasal steroids with nasal decongestants. Pharmacists rightly warn patients that they should not be using the latter for more than one to two weeks, as there is definitely a risk of rebound and rhinitis medicamentosa with prolonged use.

There used to be fears about immunosuppression with steroids and GPs previously advised patients to stop their usage of nasal steroids when down with flu. EPOS (European Position Paper on Rhinosinusitis and Nasal Polyps) guidelines now recommend the use of nasal steroids (without antibiotics) in the first week of acute sinusitis since such attacks are usually viral, and the key to treatment is reducing inflammation and improving drainage.

There are some worries about the harmful effects of nasal steroids. The first safe nasal steroid, beclomethasone has 25% systemic absorption but has been shown to have no hypothalamic-pituitary-adrenal axis suppression. The newer ones boast of only 0.5% systemic bioavailability and are approved by the US Food and Drug Administration in children as young as three.

There are also misconceptions about the role of allergy testing in allergic rhinitis. In the past, it was often thought that there was no point in testing since most patients are allergic to house dust mites, and one could not do anything

about that since dust is everywhere! Currently, that has swung to the other extreme of using allergy testing as a diagnostic test for allergic rhinitis. Allergic rhinitis is a clinical diagnosis based on history and clinical examination. A positive allergy test (eg, skin prick test) only proves atopy but does not mean there is clinical disease. Allergy testing is meant to help the clinician in the management of patients – both in the implementation of avoidance strategies and the possibility of considering immunotherapy.

Patient management

Patient education and allergen avoidance are now the first two arms of treating allergic rhinitis under ARIA guidelines. The former involves helping patients understand and accept that it is a chronic disease. It also involves instruction on the correct usage of medication. While antihistamines and decongestants are used as symptomatic medication on demand, nasal steroids need to be utilised regularly. It is important to emphasise this to patients, as they need to understand that it may sometimes take up to a week of regular usage before they experience significant improvements in symptoms. They also need to continue using the medication consistently, even when they feel well, to prevent the recurrence of symptoms. ARIA guidelines recommend using nasal steroids for two to three months before ceasing.

This is where allergen avoidance comes in. If nothing else changes, symptoms are likely to recur some time after nasal steroids have been stopped. Since the vast majority of patients are allergic to house dust mites, GPs can recommend empirical dust mite reducing measures like frequent washing of bed linen, getting rid of old pillows and bolsters, and keeping bedrooms uncluttered. With allergy testing, ENT specialists usually also recommend the use of dust mite-proof covers and dust mite sprays.

Finally, now there is the new option of sublingual immunotherapy (SLIT). Long term data (12 to 15 years) demonstrating SLIT's long term benefits is now becoming available. It should certainly be considered in patients who are refractory to treatment. There is also strong evidence to show that SLIT can halt the "allergic march" in young children. Finally, SLIT might be a more attractive alternative to long term medication for older patients who are quite dependent on nasal steroids. ■



Dr Samuel Yeak's subspecialty is nose and sinus surgery. He attended relevant fellowships in the UK and US. He obtained grants from the Ministry of Health to set up Singapore's first Rhinology laboratory, Nose Clinic, and Computer Guided Sinus Surgery programme. He was Head of ENT in Tan Tock Seng Hospital from 2003 to 2012, and now practices at Amandela ENT, Mount Elizabeth Novena.