

# CLINICAL ALLERGY IMAGES

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This is the first in a series about clinical images relevant to the practice of allergy and immunology.

## THE ATOPIC SYNDROME

This initial series of images aims to highlight the many clinical features associated with the *atopic syndrome*, commencing with common ocular and peri-orbital findings. Although physical attributes have long been associated with the *atopic syndrome*, there is surprisingly little published in this regard. The classic facial features are well recognised by most clinicians, especially during the pollen season when 'hay fever' sufferers are most affected. Much of what we know stems from early articles by astute physicians such as Marks<sup>1,2</sup> and more recently from texts by Leung *et al.*,<sup>3</sup> as well as the clinical teaching of physicians such as Professors Motala, Potter and Weinberg.

There are many facial signs and mannerisms associated with the atopic disposition. As with any clinical syndrome, a spectrum of severity may be present in any one individual and the signs may vary with time.

Commonly encountered clinical features include:

**Long pale atopic face (Fig. 1)** – a striking appearance in allergic children is that of a long pale atopic face. Given the persistent facial rubbing, particularly over the submaxillary regions, by individuals with rhinitis, it is not surprising that maxillary bone growth may be influenced. This is particularly likely if the rubbing commences in early childhood and may also be associated with, or result in, a high arched palate and dental malocclusion. The pale skin is a consequence of mild dermal oedema and abnormal capillary blood flow due to the phenomena of 'vascular steal'. The skin is also commonly associated with pityriasis sicca alba. Additional facial features include a collection of short hairs under the fringe and cracks in the skin under the earlobe.



Fig. 1. Long pale atopic face.

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**Allergic shiners (Fig. 2)** – peri-orbital ecchymotic darkening beneath the eyes. This may result as a consequence of repetitive vigorous rubbing in the peri-orbital region as well as impaired venous return from the skin and subcutaneous tissues. Interestingly, it is often noted that this region is characteristically rubbed with the base of the palm. The appearance of allergic shiners in childhood frequently induces the opinion that the 'child appears tired'.



Fig. 2. Allergic shiners and Morgan Dennie's lines.

**Morgan Dennie's lines (Fig. 2)** – an accentuated line/secondary crease below the margin of the lower eyelid. These lines are also referred to as Dennie's line, Dennie's sign, and Morgan's line. Little is known about the aetiology, but as with allergic shiners they may result as a consequence of persistent peri-orbital rubbing. It has also been postulated that infants who are at risk of developing atopic conditions may be born with Morgan Dennie's lines. The association with rhino-conjunctivitis, eczema and asthma is well established, but it is unknown if other allergic diseases such as food allergy are related.

**Allergic mannerisms (Figs 3a, 3b, 3c and 3d)** – there are many mannerisms that are characteristically associated with the atopic child. These include repetitive vertical and horizontal rubbing of the nose, also referred to as the 'allergic salute' and 'side swipe' respectively, repetitive sneezing, and continual facial distortions. The pale, clear crease which develops at the junction between the nasal cartilage and bone is called the nasal crease, and is testimony to the upward 'folding' of the nose that occurs with each allergic salute. The post-



Fig. 3a. Allergic mannerisms



Fig. 3b. Nasal crease.



Fig. 3c. 'Side swipe'.



Fig. 3d. 'Allergic salute'.

nasal drip associated with rhinitis and/or sinusitis may result in repetitive 'throat-clearing' noises as well as a 'brassy' sounding cough. Chaotic morning bed linen frequently bears witness to the fact that sleep patterns are disturbed by nasal congestion. Patients toss and turn, often unknowingly, as the body attempts to overcome nocturnal nasal congestion and maintain a clear nasal passage. Subsequent fatigue may retard work or

school performance. Fatigue may also be exacerbated by inappropriate use of the cheaper sedating antihistamines.

**Dry mouth (Fig. 5)** – ongoing nasal congestion with resultant mouth breathing results in a dry mouth and lips. Repetitive licking to moisten the lips may induce a 'lip-licking eczema'. Dry dentition predisposes the teeth to the development of dental caries, and the breath may become malodorous. Patients with the most severe forms of rhinitis may suffer with anosmia.



Fig. 5. Dry mouth and lips.

The specific features of **allergic conjunctivitis** will be discussed in a dedicated series.

Consent has been obtained for the use of all images.

## REFERENCES

1. Marks MB. Allergic shiners. *Clin Pediatr* 1966; 5(11): 655-658.
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3. Leung DYM, Sampson HA, Geha RS, Szeffler SJ. *Pediatric Allergy: Principles and Practice*. Missouri: Mosby, 2003: 599-600f 56.

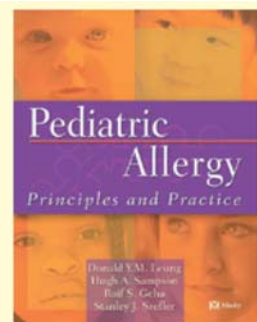
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