

## Atypical "allergic crease"

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### Abstract

**Background:** The allergic crease (nasal crease) is a transverse line, common among patients who suffer from allergic rhinitis. Although it is a very prevalent condition, the skin manifestations which accompany this condition have been only sparsely reported.

**Main observation:** We describe an 18-year-old man with allergic rhinitis, who developed cornified papules along an allergic crease. Dermoscopic examination revealed oval, slightly raised, gray, sharply demarcated papules. Histopathology revealed seborrheic keratosis like hyperplasia, accompanied by horn cysts.

**Conclusions:** To our knowledge, cornified papules have not been reported previously along the allergic crease. Considering the fact that allergic rhinitis is a common chronic condition of childhood, increased awareness of the skin manifestations which accompany this condition is essential.

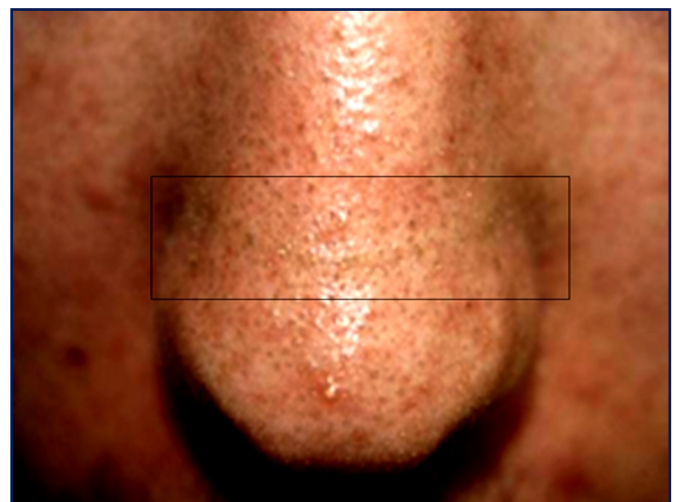
## Introduction

The "allergic crease" (nasal crease) was first described in 1960 by Meyers as a transverse hyperpigmented or hypopigmented skin line, located approximately across the connection between the lower and middle thirds of the bridge of the nose.<sup>1</sup> Although it may be a congenital, familial abnormality,<sup>2</sup> most of the cases are found in patients with allergic rhinitis.<sup>3</sup> The "allergic crease" together with the "allergic shiner" (darkening of the lower eyelid) and the "allergic salute" constitute the three facial hallmarks of these patients. Although it is a very prevalent condition, appearing in 7% of schoolchildren with nasal symptoms and signs of allergic rhinitis,<sup>4</sup> the skin manifestations which accompany this condition have been only sparsely reported.<sup>5,6</sup> We present a patient with small cornified papules which developed along the allergic crease.

## Case report

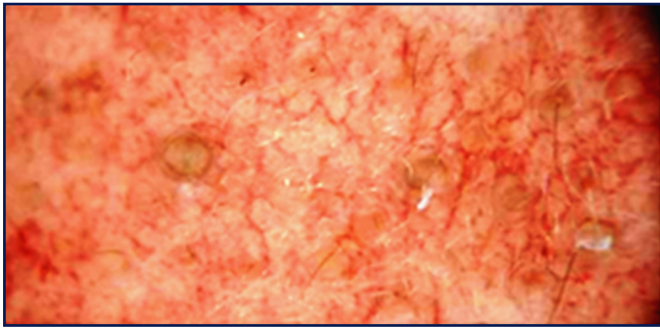
A 18-year-old man presented with the gradual appearance of linear pigmentation along the bridge of his nose for several years, accompanied by a recent emergence of small papules

along this line. The lesions were not pruritic, neither were they painful. The patient had a history of allergic rhinitis, with constant upward rubbing of his nose (corresponding



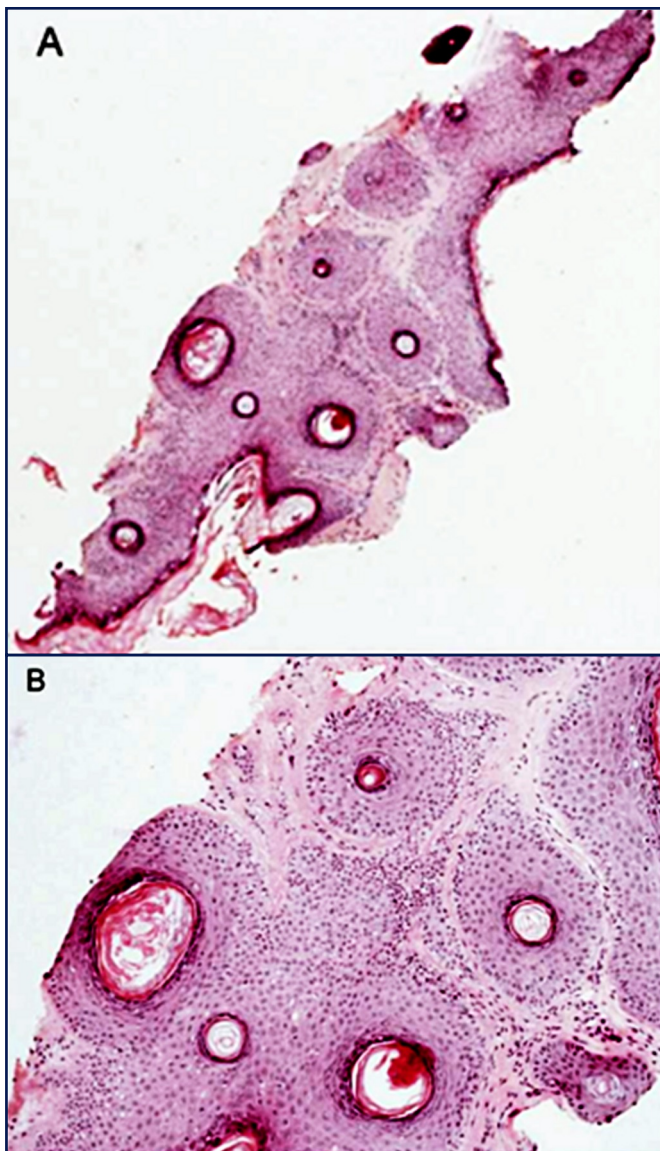
**Figure 1**

*Hyperkeratotic papules along a linear transverse hyperpigmented line on the bridge of the nose. The box indicates the typical area of an "allergic crease".*



**Figure 2**

*Dermoscopy shows hyperkeratotic structures with a "yellow dot-like appearance" and a network of multiple dilated blood vessels.*



**Figure 3**

*Histopathology reveals seborrheic keratosis like hyperplasia (A, x40), accompanied by horn cysts with a few melanophages in the dermis (B, x100).*

to the "allergic salute" sign). Other than that, the patient was in good health. The patient was treated with 4% hydroquinone cream, with no apparent improvement. On examination, he was found to have a transverse, brown hyperpigmented line across the junction between the lower and middle thirds of the bridge of the nose. Along this line several small cornified papules were apparent (Fig. 1). Dermoscopy examination revealed oval, slightly raised, gray, sharply demarcated papules and a network of dilated blood vessels (Fig. 2). Skin biopsy demonstrated a seborrheic keratosis like hyperplasia (Fig. 3A), accompanied by horn cysts with a few melanophages in the dermis (Fig. 3B). No inflammation was evident.

## Discussion

The nasal crease is probably formed from constant rubbing of the nose in patients suffering from allergic rhinitis. However, in addition, this constant rubbing predisposes the patient to other lesions located on the nasal crease. These include hyperpigmentation and hypopigmentation and atrophic scarring.<sup>1</sup> Additionally, the formation of milia has also been described, with pathologic evaluation revealing an epidermal cyst.<sup>5</sup> It has been suggested that the rupture of these cysts leads to keratin penetration into the dermis and the formation of acneiform lesions, histopathologically showing foreign body granulomas with inflammation.<sup>6</sup> These lesions have been termed "pseudoacne of the nasal crease".<sup>6</sup>

The lesions described in the current report are different from the ones reported previously, clinically, dermoscopically and histopathologically. To the best of our knowledge, such cornified papules, with histologic appearance resembling seborrheic keratosis, have not been described before along the allergic crease. Considering the fact that allergic rhinitis is considered the most common chronic condition of childhood, with almost 40% prevalence,<sup>3</sup> increased awareness of the skin manifestations which accompany this condition is essential.

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