WRINKLES DUE TO IDIOPATHIC DERMAL ELASTOLYSIS

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This report deals with the skin changes in a 9-year-old male patient, appearing clinically as a localized area of wrinkling of skin accompanied by follicular prominences over the involved skin, and characterized histopathologically by dermal loss of elastic tissue.

Key Words : Wrinkles, Follicular papules, Elastolysis

Introduction

The creases, furrows and folds which we call wrinkles rarely arouse medical interest. Wrinkling at times may be so inappropriate, striking or distinctive as to demand study and medical explanation. The patient to be described here, in this report, shows a localized area of wrinkling of skin accompanied by follicular prominences over the involved skin, characterized histologically by dermal elastolysis.

Case Report

A 9-year-old boy noticed a localized circumscribed area of wrinkling of the skin over the front of his neck 2 years ago (Fig.1). Such a change was not seen over any other area of the skin. The affected skin was asymptomatic, hyperpigmented and, showed coarse wrinkles arranged parallel to the Blaschko's lines and tiny follicular papules more marked towards the margins of the lesion but did not show atrophy or macules of herniation. Tension on the skin would obliterate wrinkles incompletely and the wrinkles would return to their normal state once the skin was released.

Past history revealed that about three years prior to the present manifestation, the patient had recurrent idiopathic urticarial lesions for about two months. There was no history of any antecedent skin involvement of any kind over the affected skin area of the neck, however. Otherwise, the patient's health has been excellent. There was no family history of any skin disease. There was no evidence of any mental retardation.

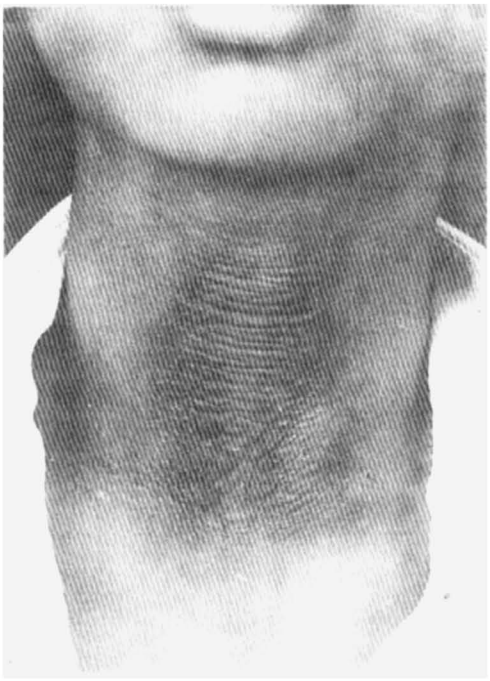

Fig. 1. Circumscribed area of wrinkling of skin over neck showing tiny follicular papules, more prominent towards the margin of the lesion.

A general physical examination and

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laboratory studies, including a complete blood cell count, chemistry screen, urinalysis, erythrocyte sedimentation rate, and thyroid studies showed no abnormalities. Tests for antinuclear antibodies, plasma reagin and rheumatoid factor were negative. Serum IgG, IgM and IgA were within normal range. Ophthalmological examination, lung function tests and roentgenogram of the gastrointestinal tract showed no abnormalities.

Histological study of involved area showed a normal looking epidermis apart from an increase in melanin content in the basal layers. There was no evidence of any incontinence of pigment in the dermis and no cellular infiltrate was seen in the dermis. The elastic tissue stain showed absence of elastic tissue in most part of upper dermis and middermis with scanty but normal looking elastic fibres in the lower dermis and around the hair follicles. The subcutaneous fat also appeared to be normal. Direct immunofluorescence showed no abnormal deposits of IgG, IgM, IgA, IgD and complement in affected and unaffected skin areas.

Discussion

The clinical hallmark of this unusual case is wrinkling of the skin and the tiny follicular papules both confined to a circumscribed area. Similar cases with wrinkling of skin and showing middermal absence of elastic tissue have been described under the term middermal elastolysis. However, in my case the absence of elastic tissue was noted in upper as well as middermis.

My case occurred in a 9-year-old male child; the four previously described cases[1-4] occurred in white women, aged 42,33,34 and 33 years respectively (Table I).

Table I. Cases of dermal elastolysis

Reference	Age/ Sex	Preceding lesions	Distribution
1.	42/F	Urticarial lesions	Arms, trunk
2.	33/F	None	Arms, shoulders trunk
3.	34/F	None	Neck, trunk
4.	33/F	None	Arms, trunk neck, thighs
Present case	9/M	None	Neck

In Brenner and colleagues' case, in Rae and Falanga's case and in my case there was no associated trauma, systemic illness or use of any medications and the skin changes seem to have been idiopathic. The cases listed in the table appear to be examples of a distinct entity that is distinguishable from anetoderma and cutis laxa,clinically and histologically. As noted by Shelley and Wood, middermal elastolysis resembles the syndrome of postinflammatory elastolysis, which is characterized histologically by absence of elastic tissue in both the upper and middle dermis. I concur with the view of Rae and Falanga that there may be a spectrum of acquired wrinkling disorders with varying histologic findings. In keeping with this view in mind, I feel that the specific characterization of middermal elastolysis be used for a subset of a group of disorders showing 'dermal elastolysis'.

The aetiology of the present disorder remains obscure. Sun exposure has been suggested as a contributing factor in the genesis of such lesions. A subclinical inflammatory episode causing elastolysis in my case, as in some previously reported cases can not be absolutely ruled out.

The patient was treated with topical retinoic acid 0.05% cream and one year after the initial presentation, the patient had little objective improvement but the process

had not spread to any other area of the body, nor had the patient experienced any inflammatory lesions over the involved wrinkled area, or elsewhere.

References

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