Case Report

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Unilateral morphea following unilateral vitiligo: a rare occurrence

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ABSTRACT

Morphea and vitiligo are two different conditions for which etiology is unknown. Many pathogenic mechanisms have been postulated for these two conditions, of which autoimmune mechanism is common to both. We here by present a case of a 36 years old female with occurrence of unilateral morphea following unilateral vitiligo.

Keywords: Morphea, Vitiligo, Unilateral

INTRODUCTION

Vitiligo is and acquired disorder of pigmentation presenting as hypopigmented patches that may have variable progression to complete de-pigmentation. Unilateral vitiligo may follow blaschko's lines which can occur as a result of cutaneous mosaicism. Morphea is an autoimmune condition, presenting as indurated plaques. It can involve dermis, subcutis, fat, muscle, can even extend upto the bone causing joint contractures, limb deformities, osteoporosis. Association of both these conditions that too in a unilateral distribution may be explained as a result of autoimmune mechanisms

CASE REPORT

A 36-year old married female patient came to our OPD with complaints of white coloured patches over the skin on left side of her body since, 7 years. The patches gradually increased in the size to merge with the surrounding patches.

From the last 2 years, she noticed difference in colour and texture of the skin over the white patches. The patches turned brownish in colour and started having a wrinkled appearance. The thinning of skin, wrinkling of skin and brownish discolouration started on upper extremities, then later progressed to involve trunk and lower extremities on

left side of the body. There was no history of preceding drug intake, trauma, vaccinations, infections, hormonal treatment or any radiation. Her mother is a known case of vitiligo vulgaris and father is a known diabetic.



Figure 1: Clinical picture showing pigmented atrophic plaques with areas of depigmentation over left upper extremity.

On examination, there were hypo- to depigmented macules and patches coalesced in few places with ill-defined margins over left side of trunk, upper and lower extremities without crossing the midline. She also had hyperpigmented atrophic plaques with surface wrinkling over the left side of the body without crossing the midline. There were no visible or palpable bony defects. There was no body asymmetry. There was no restriction of any joint movements. No history of muscle weakness, sclerodactyly. All mucosae and systemic examination were considered to be normal.



Figure 2: Pigmented atrophic plaques over posterior aspect of left upper extremity.



Figure 3: Pigmented atrophic plaques over left thigh and leg.



Figure 4: Left side of groin affected.

On histopathology, there was epidermal atrophy and flattening of rete ridges. Dermis showed hypertrophic homogenous hyalinized collagen bundles with high uptake of eccrine glands. Sparse dermal inflammatory infiltrate

was seen. Investigations such as complete hemogram, chest X-ray, ECG, X-rays of limbs and spine, anti-nuclear antibodies (ANA) were all found to be within normal limits.

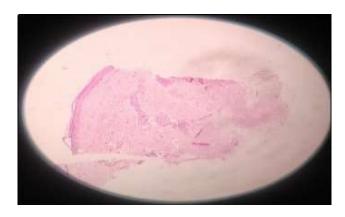


Figure 5: Scanner view of histopathology shows epidermal atrophy, dense collagen fibres with high uptake of eccrine glands.

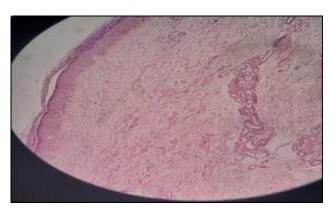


Figure 6: High magnification showing hypertrophic homogenous collagen bundles with eccrine.

DISCUSSION

Vitiligo is a disorder characterized by white spots over joints, fingers and toes, knuckles, genitalia and lips. Unilateral vitiligo differs from generalized or nonsegmental vitiligo by being more common in children and young adults, which grows for 1-2 years then remain static throughout life. It affects only one side of the body. The embryological developmental patterns for melanocytes in their movement from neural crest to epidermis corresponds to unilateral vitiligo. It can be considered as a form of segmental vitiligo, but what actually constitutes a segment is not clearly defined. These lesions present with a sharp midline restriction and appear along blaschko's lines. Segmental type of vitiligo is usually considered to be a stable form of vitiligo and is best suited for grafting procedures. Cutaneous mosaicism maybe postulated as one of the reasons for lesions to be occurring in this pattern of distribution.³

Localized scleroderma/morphea present as well circumscribed indurated plaques bound down to the underlying tissues and rarely accompanied by atrophy of the underlying structures, the causes for which are not known. Some patients have sclerosis due to Borrelia burgdorferi infection. Triggering factors include trauma, neurological disorders, infections and immunological abnormalities.

Diagnosis is done by clinical examinationand by skin biopsy. The disease is slowly progressive in nature and spontaneous remission can occur in many cases. There is no effective treatment. Phototherapy with UVA-1 and oral corticosteroids have known to be helpful.⁴ Morphea can be associated with Vitiligo and other autoimmune conditions. Rare reports of co-occurrence of Morphea and Vitiligo have been reported.⁵⁻⁷ Association of morphea with homolateral vitiligo has also been reported.⁸

The occurrence of these diseases in the same individual is more than just aco-incidence. Immunological mechanism seems to play a role indevelopment of both of these entities. Presence of vitiligo in the mother and Diabetes mellitus in father further supports the autoimmune theory. An autoimmune mechanism has been proposed for association of morphea, vitiligo, hypothyroidism, pneumonitis, autoimmune thrombocytopenic purpura and CNS vasculitis.⁹

CONCLUSION

Unilateral cases of vitiligo and morphea have rarely been reported and occurrence of unilateral morphea following unilateral vitiligo is even a rarer condition. Cutaneous mosaicism could explain the appearance of both these conditions in unilateral distribution. It is important to screen for autoimmune diseases regularly in such cases. We hereby report this case for its rare co-occurrence.

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