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Case Report

Twenty nail dystrophy with alopecia areata in an atopic child

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ABSTRACT

Twenty nail dystrophy mainly describes roughness of nail which can be idiopathic or it could be associated with various other dermatological conditions like psoriasis, alopecia areata and eczema. Here we report a case of twenty nail dystrophy with alopecia areata of scalp in a 6-year-old child.

Keywords: Twenty nail dystrophy, Alopecia areata, Atopy

INTRODUCTION

The term trachyonychia refers to twenty nail dystrophy which was first described in 1977 by Hazelrigg in children[1]. It is a benign condition where the patient presents with rough nails which generally affects more than 14 nails. This condition could be idiopathic or could be associated with various other skin disorders like psoriasis, alopecia areata, eczema and lichen planus.[2] There have been familial and congenital forms reported. Usually twenty nail dystrophy is thought to affect only children but adult cases have also been reported. Alopecia areata is an autoimmune non scarring type of patchy hair-loss seen over any hair bearing site**.** It is thought to be associated with atopy, emotional stress and few cases have been inherited.

CASE REPORT

A 6-year-old female child was brought to our OPD by her parents with complaints of thickening and rough finger and toe nails which is present for the past 3 years which started first in finger nails and then progressed to involve bilateral toe nails. They also gave history of patchy loss of hair over scalp which is present for over 8 months, which is asymptomatic and slowly progressing in size. They also gave history of atopy in family. No history of fever prior to the onset of lesions. On examination of the nails showed subungual hyperkeratosis, trachyonychia and pitting seen in all twenty nails. Lunula was not seen in any finger or toe nail. Right sole had forefoot eczema which is a sign of atopy. On examining the scalp two well defined smooth patch of hair-loss was seen. On performing hail-pull test from the periphery of the patch showed no signs of activity. No visible scaling noted over the scalp. Patient was started on oral methotrexate for twenty nail dystrophy and topical corticosteroids for alopecia areata.

DISCUSSION

Trachyonychia or twenty nail dystrophy is a skin condition which is described as rough nails affecting more than fourteen nails. This disease can present as an isolated condition without any cause or accompanied by various skin conditions like psoriasis, eczema, lichen planus and alopecia areata. Trachyonychia could present as familial, congenital or hereditary.

Trachyonychia presents as two forms – shiny nail and sandpaper nail. Nails will shows roughness and vertical ridging, which becomes lusterless eventually. Histology

of trachyonychia will show spongiotic picture with few mononuclear infiltrates or rarely psoriasiform picture can be seen.[3] Whereas, spongiotic picture is more common when twenty nail dystrophy is associated with alopecia areata.[4,5] Trachyonychia is a benign self-limiting disorder. Topical steroids, PUVA, 5-Fluorouracil and oral biotin has been used successfully in many cases.

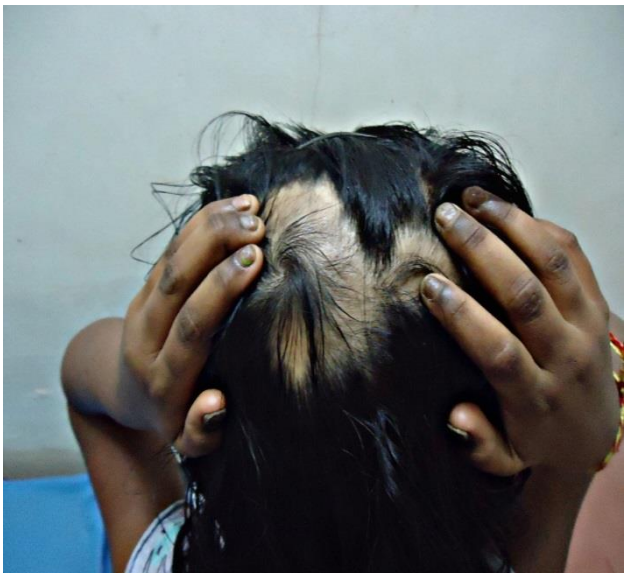

Figure 1: Clinical photograph showing dystrophy of finger nails with alopecia areata of scalp.

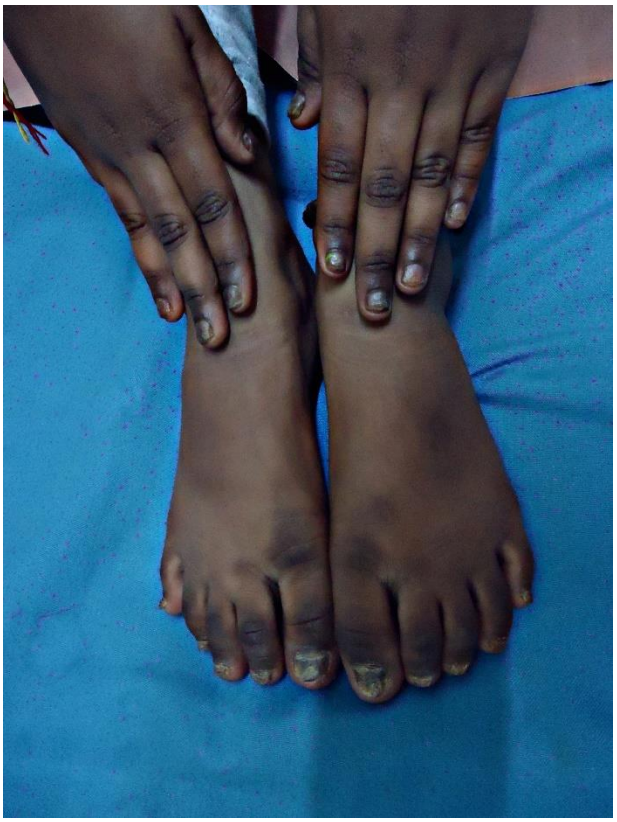

Figure 2: Clinical photograph of hands and feet showing dystrophy of all nails.

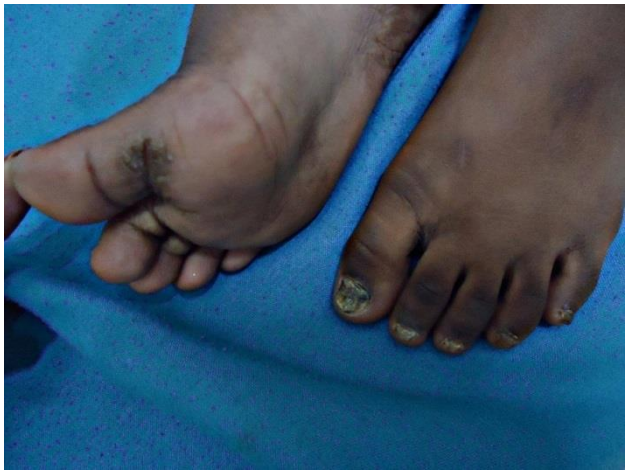

Figure 3: Forefoot eczema of right sole.

Alopecia areata is an autoimmune non scarring type of patchy hair-loss seen over any hair bearing site**.** It is thought to be associated with atopy, emotional stress and few cases inherited. According to Ikeda's classification alopecia areata has been classified into autoimmune type, pre-hypertensive type, common type and associated with atopy.[6,7] Generally pitting of nail is the most common finding which is uniformly arranged in both horizontally and vertically and is termed as 'scotch-plaid' pattern. Histopathology of alopecia areata will show perifollicular lymphocytic infiltrates which resembles 'swarm of bee appearance'. Treatment of alopecia areata depends on the severity of the disease. Topical corticosteroids, topical tacrolimus, irritants and minoxidil are various treatment modalities used in alopecia areata.[8]

CONCLUSION

In addition to twenty nail dystrophy and alopecia areata, our patient also had forefoot eczema which is suggestive of atopy. Twenty nail dystrophy with alopecia areata, and atopy with alopecia areata are common associations. But twenty nail dystrophy and atopic diathesis occurring concomitantly in a patient with alopecia areata is relatively rare and an indicator of bad prognosis.

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Ethical approval: Not required

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