

Case Report

NEVUS OF OTA WITH OVERLYING VITILIGO – A CASE REPORT

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ABSTRACT

Nevus of Ota is a congenital dermal melanocytic nevus seen predominantly in females. It is uncommon in India. Vitiligo is an autoimmune disorder characterized by type I proinflammatory cytokine secreting cells reactive with melanocyte-specific antigens targeting epidermal melanocytes. We report this case of nevus of Ota for its rare association with vitiligo in a six year old female child.

Keywords: Nevus of Ota, Vitiligo

INTRODUCTION

Nevus of Ota is an extensive, blue-black or gray-brown patch of dermal melanocytic pigmentation and typically occurs in areas innervated by the first and second branches of the trigeminal nerve, involving the eyelids, the bulbar and palpebral conjunctiva and sclera, the cheeks, forehead, scalp, alae nasi and ears. The mucosa of the cheeks and palate may also be affected (Mackie, 1998). The condition is prevalent among the Japanese, not uncommon in Orientals, but rare in Indians (Gangopadhyay, 2000). Vitiligo is characterised by depigmentation resulting from an autoimmune response targeting epidermal melanocytes. Type I cytokine mediated immunity to melanocytes in vitiligo involves T cells reactive with melanosomal antigens, similar to T cells observed in melanoma. These melanosomal antigens can be expressed by the dendritic melanocytes. These antigens could trigger autoantibodies, which may cause an immunological injury of the epidermal melanocytes of vitiligo.

CASE

A 6-year-old female child presented to our department with an asymptomatic hyperpigmented lesion on the right side of the forehead and temple, around the right orbit and sclera, right side of the hard palate. Her mother also gives a history of depigmented lesion over the right side of the forehead since her infancy. Lesions remained static. There was no significant family history.

On examination, bluish grey macules over right infra orbital region and sclera (Figure 1A), right lateral aspect of the forehead and temple (Figure 1B), right side of the hard palate (Figure 1C) was noted. Single depigmented macule with leucotrichia (Figure 1D) present over the right side of the forehead. Ophthalmological examination revealed no abnormality. General examination showed no abnormality. Systemic examination showed no abnormality. Patient's mother denied skin biopsy despite counselling.

DISCUSSION

Nevus of Ota is a dermal melanocytic nevus. Dermal melanocytoses or dermal dendritic melanocytic proliferations are characterized by the presence of melanin- producing dendritic melanocytes in the dermis. Ota's nevus (nevus fuscocaeruleus ophthalmomaxillaris), was first described by Ota in 1939. Nevus of Ota is now sub classified as mild (type 1), moderate (type 2), intensive (type 3), and bilateral (type 4). The clinically noted blue colour is due to the presence of melanin pigment in the dermis and the Tyndall effect. Histopathological examination of nevus of Ota show elongated, dendritic melanised melanocytes scattered among the collagen bundles. Most of the dendritic melanocytes lie in the upper third of the reticular dermis, but may also occur in the papillary layer and may also extend as down as the subcutaneous tissue. The development of vitiligo may be related to the blue nevus (Iijima and Kanazawa, 1953). Vitiligo is believed to be an autoimmune disorder characterized by type I proinflammatory cytokine secreting cells reactive with melanocyte-specific antigens targeting epidermal melanocytes (Le Poole and Luiten, 2008; Le Poole et al., 2004). These melanosomal antigens can be expressed by melanoma (Le Poole et al., 2004; Stierman et al., 2009) and may also be expressed by the dendritic

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melanocytes of our case. These antigens could trigger autoantibodies (Stierman *et al.*, 2009), which may cause an immunological injury of the epidermal melanocytes of vitiligo.

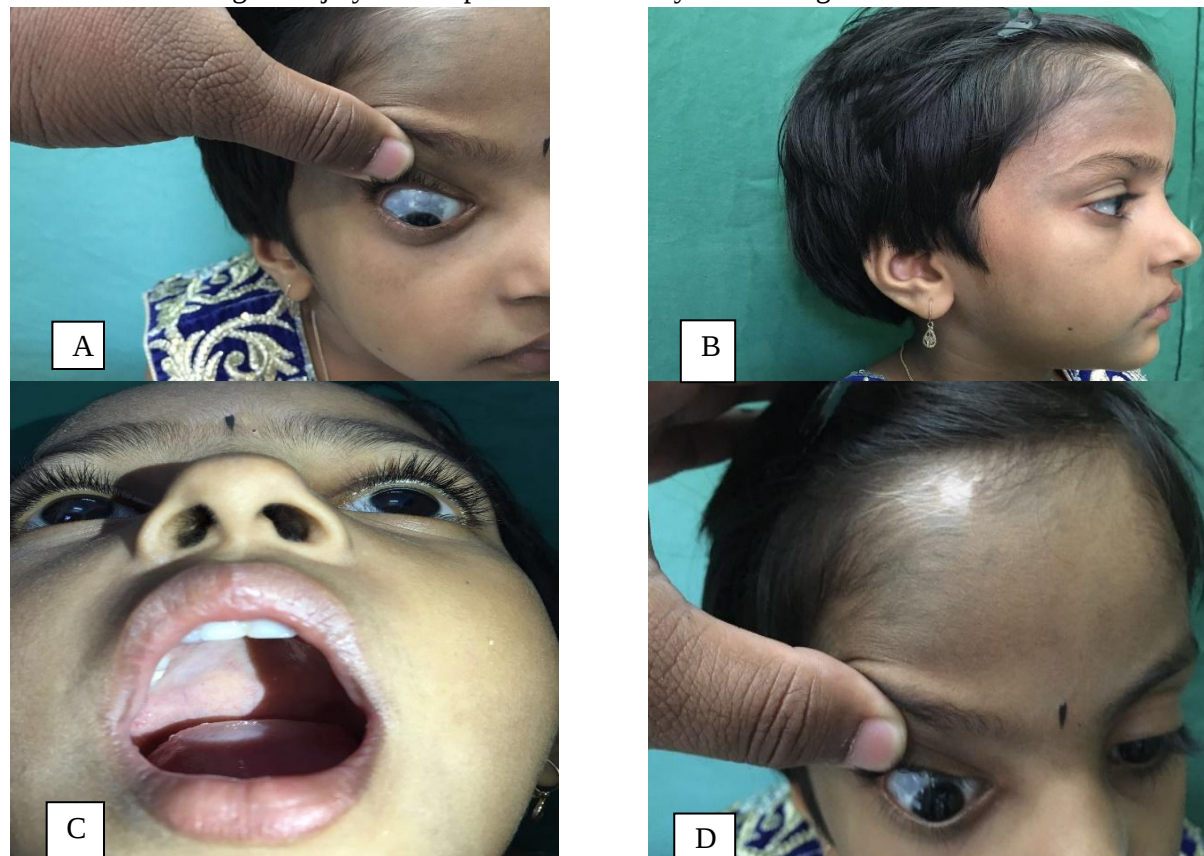


Figure 1 (A) Bluish Grey Macules over Right Infra Orbital Region and Sclera; (B) Bluish Coloured Macules over Right Lateral Aspect of the Forehead and Temple; (C) Bluish Discolouration over Right Side of the Hard Palate; (D) Depigmented Macule with Leucotrichia Present over the Right Side of the Forehead

Conclusion

The main point of interest in this case is that it's particular clinical manifestation of nevus of Ota and its association with vitiligo development.

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