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Letter to Editor

Occurrence of Verruca Vulgaris Over Nevus Sebaceous: An Example of Locus Minoris Resistentiae

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Dear Editor,

Nevus sebaceous (NS) is a benign hamartomatous skin lesion, which is usually located over the head-and-neck region. Secondary benign and rarely malignant neoplasm may arise in NS which may present clinically as verrucous lesions.^[1] Rarely, verruca may also develop over NS,^[2] thus representing a site of decreased local resistance. Locus minoris resistentiae (LMR) is defined as an area of skin that offers lesser resistance to the development of cutaneous disorders as compared to the rest of the body, thus considered as an area that is more vulnerable to cutaneous dermatosis.^[3] The occurrence of verruca over NS and areas of cutaneous mosaicism is rare. We herein report a case of verruca which developed over NS.

A 21-year-old male patient presented with a single brownish to greyish lesion over the right side of the nose since birth. He noticed a single raised brownish growth over the lower part of the existing lesion for the past 2 years. On cutaneous examination, a single well-defined greyish to hyperpigmented linear plaque extending from the root up to the tip of the nose was present over the right side of the nose suggestive of NS [Figure 1]. Over distal part of the lesion, a single well-defined brown-coloured verrucous papule was present [blue arrow in Figure 1]. Histopathological examination of verrucous papule showed hyperkeratosis, parakeratosis, papillomatosis, hypergranulosis and koilocytes suggestive of verruca [Figure 2a-c]. On the basis of clinico-histopathological findings, the final diagnosis of verruca over NS was made.

NS is a hamartoma with epidermal, follicular, sebaceous and apocrine gland abnormalities. Various benign as well as malignant tumours may arise within NS.^[1] These lesions may appear as verrucous growths and may mimic verruca. On the other hand, there are few case reports of the development of verruca over NS.^[2,4] Even multiple tumours including verruca have been reported in a single lesion of NS. Cicek *et al.*^[4] reported basal cell carcinoma, poroma and verruca together in a single lesion of NS. The development of verruca over NS is considered to be an example of LMR. LMR represents a region of the skin which is more vulnerable for the onset of another cutaneous dermatosis, which is strictly confined to that particular site. Areas of cutaneous mosaicism such as epidermal nevi, lichen striatus, linear porokeratosis and giant congenital melanocytic nevi may act as congenital LMR.^[5] Cutaneous mosaicism refers to cutaneous segments which harbour cell populations with antigenic structure and immunologic properties different from those pertaining to the rest of the body. These defects originate in somatic mosaicism that causes loss of heterozygosity of some genes, which generates a segment of homozygous or hemizygous tissue where potentially generalised diseases can find an opportunistic location.^[5] The genetic predisposition in these genetically mosaic cells makes

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Figure 1: Well-defined greyish to hyperpigmented linear plaque extending from the root up to the tip of the nose over the right side of the nose tip suggestive of nevus sebaceous (red arrow). Single well-defined brown-coloured verrucous papule was present (blue arrow).

them more prone for the development of other dermatoses as compared to healthy neighbouring cells.

The probable hypothesis behind the strict localisation of verruca over NS in our case is that NS is acting as a site of LMR thus, leading to co-occurrence of verruca over NS.

Ethical approval

Institutional Review Board approval is not required.

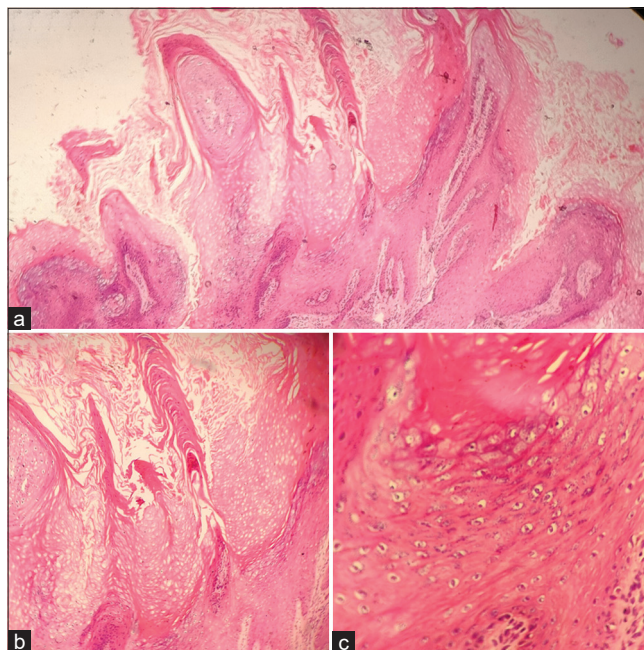


Figure 2: (a) Hyperkeratosis and parakeratosis (haematoxylin-eosin stain $\times 25$). (b) Papillomatosis and hyperkeratosis (haematoxylin-eosin stain $\times 10$). (c) Hypergranulosis and koilocytes (haematoxylin-eosin stain $\times 100$).

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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