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A RARE CASE OF VERRUCOUS EPIDERMAL NEVUS

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Epidermal nevi are hamartomas lesions that are typically present at birth but can occur any time during childhood and may rarely appear in adulthood. They are congenital malformations or hamartomas derived from embryonal ectoderm. An estimated one third of individuals with epidermal nevi have involvement of other organ systems. There are four distinct epidermal nevus syndrome: linear sebaceous nevi, linear nevus comedonicus, linear epidermal nevus and inflammatory linear verrucous epidermal nevus. Each type may be regarded as a part of a syndrome with other systemic manifestation [1] .These nevi may be classified into a number of distinct variants based on clinical morphology, extent of involvement, and the predominant epidermal structure in the lesion. Variants include verrucous epidermal nevus, nevus sebaceous, nevus comedonicus, eccrine nevus, apocrine nevus, Becker's nevus, and white sponge nevus. [2]

A 15 year old male patient presented with a dark coloured lesion over the left supra-auricular region. The lesion was present since birth with progressive increase in size from puberty. There was history of oozing and mild itching over the lesion. Local physical examination revealed a hyperpigmented verrucous plaque over left supra-auricular region, extending anteriorly in a linear fashion in the pre auricular region (Figure 1a). Family history for similar lesions was negative and there was no history of seizures or psychomotor disorders. The patient also underwent extensive assessment for any skeletal, ophthalmic or neurological abnormalities, which was negative. The legion was biopsied and microscopic examination showed marked hyperkeratosis of the epidermis along with papillomatosis and acanthosis. In the dermis was seen sebaceous gland hyperplasia and presence of groups of dilated apocrine glands (Figure 2). A diagnosis of verrucous epidermal nevus was made.

Epidermal naevi (EN) are hamartomas that are characterized by hyperplasia of the epidermis and adnexal structures and may be keratinocytic, follicular, sebaceous, apocrine or eccrine in origin.[3] There are two major classifications of epidermal nevi: non-organoid (keratinocytic) and organoid (sebaceous, follicular, and sweat gland). The type of epidermal nevus is determined by its predominant components, keratinocytes or epidermal appendages, both of which originate from embryonic ectoderm.[4] Epidermal nevus can be present as a part of epidermal nevus syndrome or as a sporadic occurrence, as seen in this case.

These lesions are usually present at birth, as was also noted in our case. The lesion typically occurs on the trunk or extremities along the lines of Blaschko but

may occur on the face and neck. These lines are thought to represent examples of cutaneous mosaicism in embryologic development.[4] Histology of verrucous epidermal nevi shows hyperkeratosis, acanthosis and papillomatosis. Epidermolytic hyperkeratosis may be noted in diffuse cases, and less commonly, in localized epidermal nevi. The present case also showed the typical epidermal features of verrucous nevus. The dermis showed mild sebaceous hyperplasia, attributable to its location on the face. Verrucous epidermal naevi, particularly if extensive, may be associated with other developmental anomalies mainly involving the central nervous system, the skeletal system, and the eyes.[5] Rarely, squamous cell carcinoma, basal cell carcinoma, and keratoacanthoma have also been associated with a keratinocytic epidermal nevus.[6] Our patient underwent evaluation for any skeletal, ophthalmic or neurological abnormalities, which was negative.

Management of epidermal nevi includes application of topical agents like glucocorticoids, retinoids, and 5-fluoruracil[7] and destructive measures including dermabrasion, liquid nitrogen cryotherapy, laser therapy, and surgical excision.[8] The patient underwent cryotherapy with good results (Figure 1b).Epidermal verrucous nevus, though of a benign nature, needs definitive treatment because of cosmetic reasons and the risk of developing opportunusic infections and rarely malignancy.

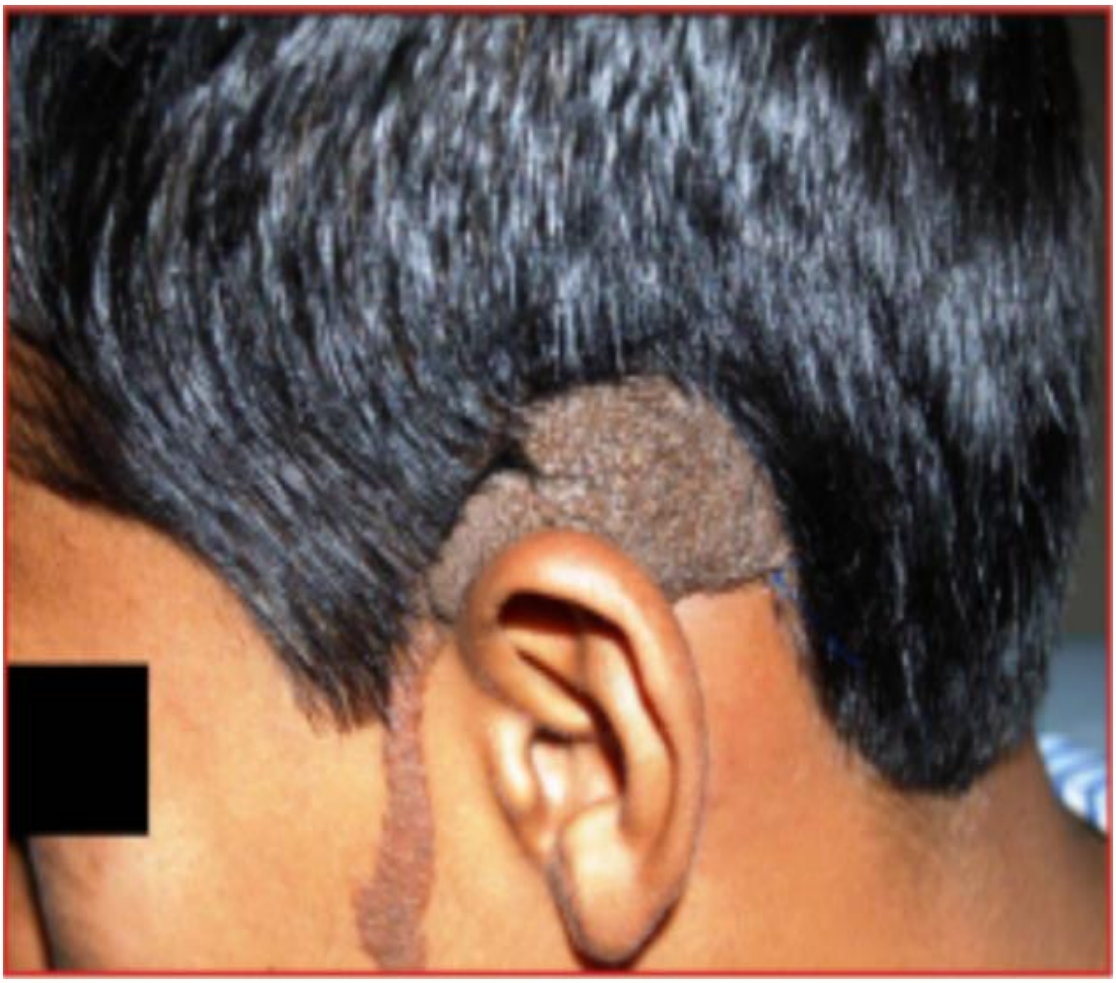

Fig.1a

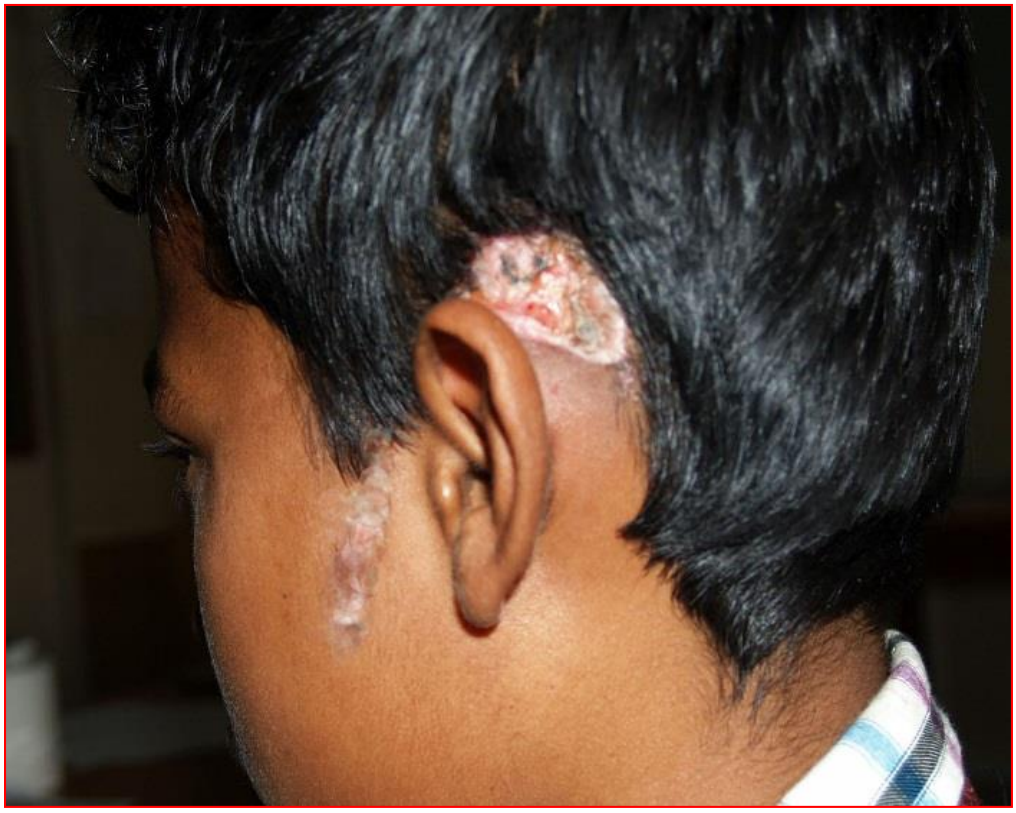

Fig.1b

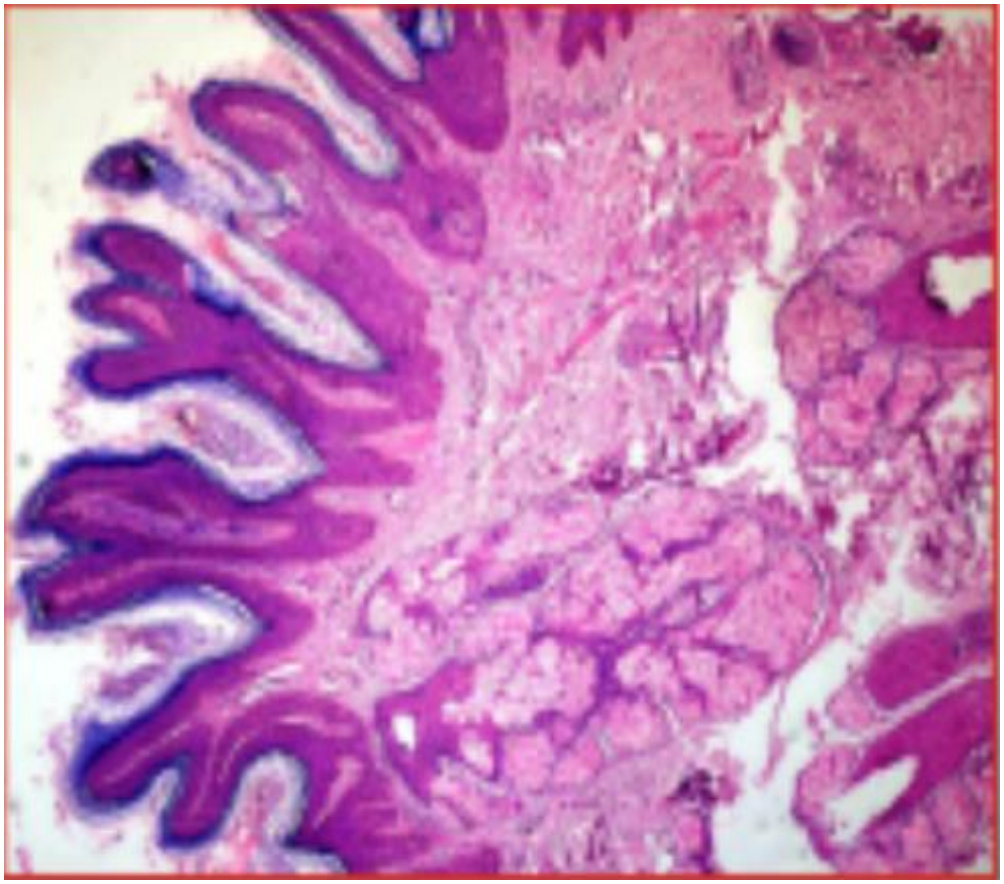

Fig.2

Figure legends

Figure-1: 1a- Photograph showing hyperpigmented verrucous plaque over left supra-auricular region, extending anteriorly in a linear fashion in the pre auricular region. 1b- Photograph of the lesion site after cryotherapy.

Figure-2: Photomicrograph showing marked hyperkeratosis of the epidermis along with papillomatosis and acanthosis (H & E, 400x)

References

1. Kumar CA, Yeluri G, Raghav N. Inflammatory linear verrucous epidermal nevus syndrome with its polymorphic presentation - A rare case report. Contemp Clin Dent 2012; 3:119-22.
2. Dosik JS. Epidermal Nevus. Dermatol Online J 2001 Feb; 7 (1):14.
3. Panagiotopoulos A, Chasapi V , Nikolaou V, Stavropoulo P G, Kafouros K, Petridis A and Katsambas A. Assessment of Cryotherapy for the Treatment of Verrucous Epidermal Naevi. Acta Derm Venereol 2009; 89:292–94.
4. Cassetty C T, Leonard A L. Epidermal nevus. Dermatol Online J 2003; 9 (4):43.
5. D (Bandyopadhyay, S Sen Perianal verrucous epidermal naevus mimicking perianal warts. Sex Transm Infect 2003; 79:424.
6. Happle R, et al. Epidermal nevi. Adv Dermatol 2002; 18:175.
7. Boyce S, et al. CO2 laser treatment of epidermal nevi: Long-term success. Derm Surg 2002; 28:611.
8. Lee BJ, et al. Full-thickness surgical excision for the treatment of inflammatory linear verrucous epidermal nevus. Ann Plast Surg 2001; 47:285.