

Acquired linear Becker's nevus on lower limb in blaschkoid pattern

Sir,

Becker's nevus is a relatively common cutaneous hamartoma which usually affects young males and is characterized by a unilateral hyperpigmented, hypertrichotic patch on the upper trunk or proximal upper extremities. Although usually acquired, a few congenital cases have also been reported. The lesions usually have a geographic or block-like configuration in an irregular pattern; but a linear pattern has rarely been reported in congenital cases. However, there are not many reports of acquired Becker's nevus presenting in linear blaschkoid pattern.

A 17-year-old man presented with asymptomatic, dark brown, flat lesions over the left leg noticed 2 years. There was a concomitant increase in body hair in that region. Physical examination revealed a hyperchromic dark brown patch with irregular borders covered by dark coarse hairs extending from the left buttock up to the ankle joint, covering the posteromedial aspect of the left thigh and posterior aspect of the left leg [Figure 1a, b and c]. The lesion had a linear distribution following the lines of Blaschko. A clinical diagnosis of Becker's nevus was made. Thorough physical examination did not reveal any neurological or underlying musculoskeletal defect.

Histopathological examination revealed increased pigmentation in the upper Malpighian layer, along with macrophages in the upper dermis compatible with Becker's nevus [Figure 2]. Routine investigations were normal. Systemic investigations including radiological examination revealed no other abnormalities.

Although in its classic form, it is considered to be an acquired disorder, congenital^[1] and late onset^[2] Becker's nevus lesions have also been reported. The lesions may have various shapes but classically have a geographic or block-like configuration in an irregular fashion; however, a blaschkoid pattern or linear pattern has been reported in the literature in a few congenital cases.^[1,3] This abnormal phenotypic expression may be due to the somatic mutation occurring only in the affected segment of the body leading to linear pattern along with block configuration of some dermatoses. Blaschko's lines represent a pattern assumed by many different nevoid and acquired skin diseases on skin and mucosa.^[4] The question of whether Becker's nevus follows Blaschko's lines or not remains controversial. Although in 1976, Jackson listed Becker's nevus as one of the nevoid skin diseases that follows Blaschko's lines,^[5] this fact was contradicted by Bologna *et al.*,



Figure 1: (a) Linear hyperpigmented macules with hypertrichosis on left leg extending from buttock till ankle joint; (b) linear hyperpigmented macules with hypertrichosis on left leg extending from buttock till ankle joint; (c) hyperpigmented macules with hypertrichosis on left thigh in comparison to right thigh

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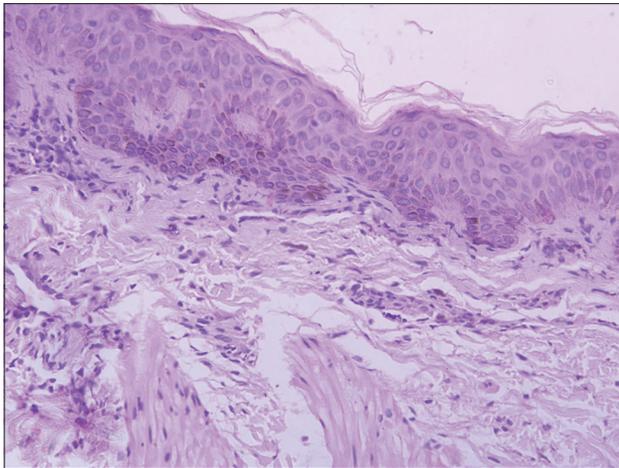


Figure 2: Histopathologic section showing increased pigmentation in upper Malpighian layer, along with macrophages in upper dermis (H and E, original magnification x40)

who insisted that among the lesions listed by Jackson, Becker's nevus and linear scleroderma do not follow Blaschko's lines.^[4]

Becker's nevus has been found to be associated with chromosomal mosaicism.^[6] In addition to the Blaschkoid pattern, mosaicism may produce cutaneous patterns such as checkerboard, phylloid, and patch without midline separation. Recently, Khaitan *et al.* reported a case of multiple Becker's nevi with seven distinct lesions in checkerboard patterns characterized by alternating squares of hyperpigmentation with a sharp midline separation.^[7]

Our patient presented with lesions in a linear distribution on the left lower limb thus following the pattern of Blaschko's lines. However, in our case, the lesion appeared at adolescence. This was contradictory to previous reports where blaschkoid pattern of Becker's nevus was seen only in congenital cases, It is highly likely that the tendency for its development was predetermined during embryogenesis with the formation of a clone of vulnerable cells imparting a genetic basis.

Khaitan *et al.*^[8] reported five cases of Becker's nevus on the lower limbs from India; all of them were of localized type. Alhausayen *et al.* reviewed the literature and reported 11 cases of Becker's nevus over the lower limb, all of them being located on the proximal part of extremity (the knee and above).^[9]

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