**ABSTRACT**

Becker's nevus is an acquired, pigmentary disorder of the skin seen in adolescent males, commonly over the shoulder, chest and scapular region. We report a case of Becker's nevus in a female patient with the lesion present over the left upper limb.

**KEYWORDS**

Becker's nevus, hypertrichosis, smooth muscle hamartoma

**Introduction:**
Becker's nevus also known as Becker's melanosis and Pigmented Epidermal nevus is a common, acquired, cutaneous smooth muscle hamartoma, seen in young males as a unilateral, pigmented, hypertrichotic patch with irregularly demarcated borders on the shoulder and trunk.

**Case report:**
A 33-year-old female came to the skin OPD with complaints of a pigmented lesion on the left upper limb for the past 10 years. Patient was apparently normal 10 years back after which she noticed a small pigmented patch on the left forearm which progressively increased in size to involve the arm as well. Patient was otherwise asymptomatic. On examination, a single pigmented patch with irregular borders was seen on the extensor aspect of left arm and forearm. Few pigmented macules were seen at the periphery of the lesion. Follicular prominence was evident. Pseudo-Darier's sign was positive.

Skin biopsy was done and histopathological examination revealed thinned out epidermis, increased pigmentation of the basal layer with smooth muscle and cut section of hair follicle was seen in the dermis. Features were consistent with that of Becker's nevus.

**Discussion:**
Becker's nevus is a relatively common smooth muscle hamartoma with brown to black pigmentation and hypertrichosis seen in young males. It is commonly seen over the upper trunk and shoulder in a unilateral distribution and rarely on the face and extremities.

Though the exact pathogenesis of Becker's nevus is unknown, cutaneous mosaicism is thought to play a role. Peri-pubertal development, acneiform lesions within the patch, male predilection and increased cutaneous androgen receptors indicate that androgens might play a role in Becker's nevus.

Clinically, it starts as an area of irregular macular pigmentation which spreads to a diameter of several centimetres. New macules may develop at the periphery of the lesion and may coalesce with it, giving it a geographic contour. Hypertrichosis is a common feature and has been reported to be absent in the extremities.

On histopathological examination, the epidermis shows acanthosis, with irregular elongation and flattening of the rete ridges which have a tendency to fuse. The basal cell layer will show increased pigmentation with melanophages in the upper dermis. The pilar structures in the dermis may appear normal or increased in number. If it is associated with a smooth muscle hamartoma, irregularly arranged, thick bundles of smooth muscle can be seen in the dermis.

Becker's nevus syndrome includes Becker's nevus associated with unilateral breast hypoplasia, aplasia of ipsilateral pectoralis major muscle, shortening of ipsilateral limb, spina bifida, localized lipatrophy, scoliosis, congenital adrenal hyperplasia or pectus carinatum.

As Becker's nevus is usually self-limiting and persists for life long, treatment is usually reassurance. Topical and systemic medications are of no significance. Lasers like Q-switched ruby laser, Nd:YAG laser, Er:YAG laser can be of some benefit in reducing the pigmentation and hypertrichosis. Cosmetic camouflage is a very useful mode of treatment.

**CONCLUSION:**
Becker's nevus commonly presents in young adolescent males over the chest and shoulder and its occurrence in a female patient at an unusual site adds to the rarity of the case.

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**CONFLICT OF INTEREST:** The authors declare that they have no conflict of interest.
Figure 3: Black arrow shows increased pigmentation in the basal layer, red arrow shows smooth muscle, yellow arrow shows hair follicle

References: