Becker's Nevus Syndrome - Rare entity

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Abstract

Becker's nevus is a rare non-cancerous hamartoma characterized by hyperpigmentation and hypertrichiosis with ill-defined borders. Becker's nevus syndrome is an entity in which there is association of Becker's nevus with few abnormalities like unilateral breast hypoplasia, muscle, skin, and skeletal abnormalities. Here we present a case of 14 year old boy who presented with a large hyper pigmented dark brown patch on his upper back. The patient also had a triangular lesion on his lower back with increased hair growth, which was present since birth. X-Ray spine showed Bifid Spinous process of L4. Histopathological examination of the hyper-pigmented area showed findings which were consistent with Becker's nevus.

Keywords

Beckers nevus, hamartoma, hypertrichiosis

Imprint


Introduction:

Becker's nevus also known as Becker's melanosis, was first described in 1949 by Becker. It is an epidermal cutaneous hamartoma which is common in adolescent men than women. The most common clinical presentation is the presence of multiple macules and is with hypertrichrosis and hyperpigmentation. Commonly involved sites are trunk or shoulder and have a unilateral distribution. In rare cases, this condition is associated with other skin features; muscular or skeletal features; or underdevelopment (hypoplasia) of the breast. Recertification, or practice. An extremely user-friendly full-color format, replete with full-color clinical photographs and other pertinent illustrations, makes it easy to locate and read up on any topic. Plus, full-text online access lets you consult the book from any computer, download all of the images, watch online lectures, and more. Expert discussions and abundant full-color photographs guide you through the diagnosis and management of the most important and commonly seen skin conditions. A highly user-friendly full-color format and a consistent chapter template guide you effortlessly through all the information you need to know about any topic. Key Points call attention to the most important “takeaways” in each chapter. Abundant algorithms streamline diagnostic and therapeutic decision making. The book's compact size makes it equally convenient for reference in the office, clinic, laboratory, or break room. Full-text online access lets you consult the book from any computer, perform quick searches, download all of the illustrations, and clip content for download onto your handheld device. You'll also find online lectures from the chapter authors, self tests, additional downloadable figures, and other exciting materials. Your purchase entitles you to access the web site until the next edition is published, or until the current edition is no longer offered for sale by Elsevier, whichever occurs first. If the next edition is published less than one year after your purchase, you will be entitled to online access for one year from your date of purchase. Elsevier reserves the right to offer a suitable replacement product (such as a downloadable or CD-ROM-based electronic version

Case Report:

A 14-year-old boy, presented with complaints of large hyperpigmented dark brown patch on his upper back, which was increasing in size along with increased hair growth on the lesion since 5 years. Initially the lesion appeared as a macule, which was gradually enlarging, but asymptomatic. The patient also had a triangular lesion on his lower back with increased hair growth, which was present since birth. X-Ray spine showed Bifid Spinous process of L4. Personal history and family history were nil significant. Biopsy of skin covering bit of tissue measuring 0.4cm was taken from the hyperpigmented area. Whole specimen processed. Histopathological examination was done and following findings were noted. Epidermis showed slight acanthosis and regular elongation of rete ridges. In-
ter-bridging of rete ridges was also seen. There was hyperpigmentation in the basal layer and melanophages in the upper dermis and also hyperpigmentation in the basal layer and melanophages in the upper dermis. Pilar structures were also increased in number. Based on histopathological findings, the diagnosis was confirmed as Becker’s Nevus. As the patient also had Bifid Spinous process of L4, the final diagnosis was given as Becker’s Nevus Syndrome.

Discussion:

Becker’s nevus is a benign and acquired lesion, presenting mostly as a unilateral, well-demarcated, irregular shaped, hyperpigmented macule or patch, most commonly found on the shoulder region of males around the time of puberty. It is associated with various developmental anomalies or structural defects such as ipsilateral breast hypoplasia, supernumerary nipples, short limb or other forms of limb asymmetry, scoliosis, hemivertebrae, cleft vertebrae, spina bifida occulta, pectus excavatum, etc.

Although the etiology of Becker’s nevus remains uncertain, two main hypotheses have been proposed. First, the majority of cases are sporadic; familial grouping is very rare. Hence its genetic basis may be due to pattern. The other hypothesis is that the con-
dition is a hormone dependent disorder where there is an increase in the number of androgen receptors in the affected areas, which explains the appearance of lesions in puberty and alterations such as hypertrichosis and acneiform eruptions postzygotic autosomal lethal mutation which survives in a mosaic which are restricted to the affected regions. Males are more commonly affected than females. Kim et al. has also documented a slight male According to a systematic literature review by Schneider et al., Becker’s nevi and the malformations may have a regional association. Similarly in our case, there was hyperpigmentation in the upper scalp region along with Bifid spinous process in L4. There are few reports that have revealed its associated with keratinocyte carcinomas such as basal cell carcinoma and Bowen disease. All of these cases had developed cancerous lesions over the area of Becker nevus, which was not a sun-exposed site and was seen in a low-risk patient. dominance among children less than 18 years of age. Hence overall, being an androgen-dependent disorder, this syndrome is more common in males, but more easily diagnosed in females.

Conclusion:
Based on histopathological findings the diagnosis of Becker’s Nevus is confirmed. The patient also presented with Bifid Spinous process of L4, making the final diagnosis to be Becker’s Nevus syndrome. Although this is a benign entity, according to few studies, it has been associated with keratinocytic carcinomas, hence early diagnosis and long term follow up should be encouraged in order to prevent the development of malignant lesion.

References: