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# Becker's Nevus Syndrome- A Rare Entity

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## Abstract

A rare form of hypertrichiosis and hyperpigmentation with ill-defined borders, Becker's nevus is a non-cancerous hamartoma. Several abnormalities, including "unilateral breast hypoplasia", muscular, skin, and "skeletal abnormalities", are associated with Becker's nevus in a condition known as "Becker's nevus syndrome". Here we present a case of 14-year-old boy who presented with a large hyperpigmented 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".

## 1. Introduction

"Becker's nevus" also known as "Becker's melanosis", was first described in 1949 by Becker.[1] Itis 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 "hypertrichosis and hyperpigmentation". Commonly involved sites are trunk or shoulder and have a unilateral distribution.[2]In rare cases, this condition is associated with other skin features; "muscular or skeletal features"; or "underdevelopment (hypoplasia) of the breast".[3]

## 2. 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.Inter-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.

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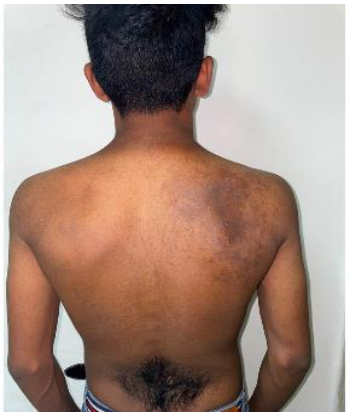

**Figure**.1

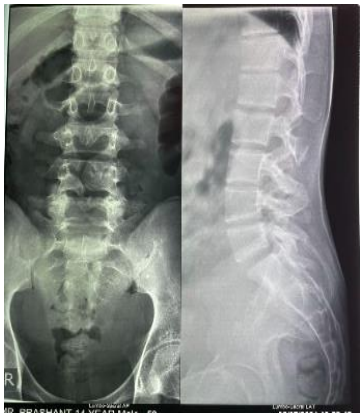

**Figure**.2

**Figure**.1 shows hyperpigmentation on the right upper back and tuft of hair on his lumbar region (Faun tail Nevus)

**Figure 2** X-ray showing bifid spinous process of L4.

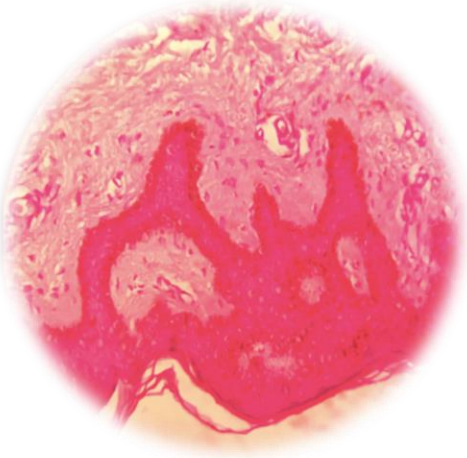

**Figure**.3

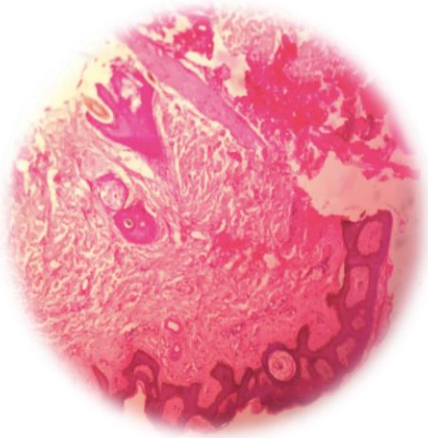

**Figure**.4

**Figure.3 & 4** showing High and Low power view of inter-bridging rete ridges, increased melanophages in the upper dermis along with increased pilar structures.

## 3. Discussion

The shoulder region of males is the most prevalent location for Becker's nevus, a benign and acquired lesion that typically appears as a unilateral, well delineated, irregularly shaped, hyperpigmented macule or patch. 3 It is linked to a number of morphological or developmental abnormalities, including "ipsilateral breast hypoplasia, extra nipples, short limbs or other asymmetrical limbs, scoliosis, hemivertebrae, cleft vertebrae, spina bifida occulta, pectus excavatum, and many more".[4]

Two basic theories have been put forth, despite the fact that Becker's nevus' origin is still unknown. Familial clustering is rather rare, and the majority of cases are sporadic. Therefore, a postzygotic autosomal fatal mutation that survives in a mosaic pattern may be the source of its genetic makeup. According to the second idea, the condition is a hormone-dependent ailment in which the affected areas have an increase in androgen receptors. This

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increases the likelihood of alterations such hypertrichosis and localised acneiform eruptions as well as the formation of lesions during puberty.[5]

Males are more likely than females to be afflicted. A minor male predominance among children under the age of 18 has also been observed by Kim et al. Since this illness is androgen-dependent, it affects men more frequently overall but is easier to identify in women.[5]

Becker's nevi and the abnormalities may be connected regionally, according to Schneider et alsystematic .'s evaluation of the literature. Similar to what was observed in our instance, L4's Bifid spinous process and upper scalp hyperpigmentation were both present. There are only a few studies that have shown its connection to keratinocyte carcinomas like basal cell carcinoma and Bowen disease. These patients all had malignant lesions over the Becker nevus area, which was not exposed to the sun and was found in a low-risk patient.[6]

## 4. 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.

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