

# Multiple bilateral Becker's nevus in a Saudi female: a rare presentation

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**Abstract:** Becker's nevus (BN) classically presents as a single, sharply demarcated, unilateral, hyperpigmented, tan colored macule over the shoulder or pectoral area and is more frequent in adolescent males than females. In this study, we present an acquired, non-syndromic atypical BN in a Saudi female.

**Keywords:** Acquired; atypical; Becker's nevus (BN); bilateral

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#### Introduction

Becker's nevus (BN) was first described by William Becker as a concurrent melanosis and hypertrichosis in the distribution of nevus unius lateris (1). It is fairly a common condition, presented as a single, asymptomatic, unilateral lesion mostly located over shoulders and anterior chest (2). BN usually affects adolescent male more than female with a ratio of 5:1 (2-4).

Multiple and bilateral BN is rarely reported in the literature (2,4). Here we are presenting an atypical BN presentation in a Saudi female having multiple patches bilaterally over the upper back, chest and breasts.

# **Case presentation**

A healthy, 20-year-old Saudi female presented to the dermatology outpatient clinic at King Khalid University Hospital with asymptomatic tan to brownish pigmented patches over both sides of her upper back and chest extending to both breasts. It started as a small macule over the back and gradually increased in size and had darkened in color over the past four years, involving both sides of her upper back and breasts.

Upon examination, (Figure 1) multiple patches, the largest measuring about 25 cm  $\times$  17 cm in size,

homogenously tan to brown with shaggy borders, and blotchy hyper pigmented macules at the border were observed over both sides of her upper back. No changes in skin texture or hair density compared to normal skin was noted. There were multiple patches and macules with same morphology over her chest and breasts (*Figure 2*).

The systemic medical review and family history were unremarkable.

In the differential diagnosis, we included idiopathic eruptive macular pigmentation, confluent and reticulated papillomatosis, and BN. Histopathological examination of skin biopsy shows elongation and fusion of rete ridges with heavy pigmentation of basal layer (Figures 3,4), and melanophages could be seen in the upper dermis. Periodic acid-Schiff stain was negative for fungi. Bone survey of spinal vertebrae and ribs with X-ray showed no abnormalities.

## **Discussion**

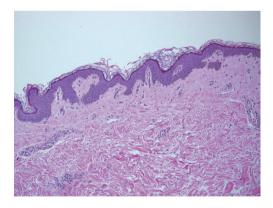
Classically, BN often appears as a single, sharply demarcated, unilateral, hyperpigmented, tan colored macule over the shoulder or pectoral area in a teenage male (5). Associated with various non-cutaneous anomalies such as aplasia of the ipsilateral pectoralis major muscle, unilateral hypoplasia



Figure 1 Atypical Becker's nevus over the back.

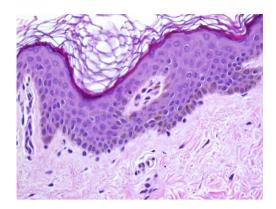


Figure 2 Atypical Becker's nevus over the chest.



**Figure 3** H&E stain, ×100: compatible with Becker's nevus. H&E, hematoxylin and eosin.

of the breast, ipsilateral limb shortening, localized lipoatrophy, spina bifida, scoliosis, pectus carinatum, congenital adrenal hyperplasia, and an accessory scrotum have also been reported to be associated with BN (3).



**Figure 4** H&E stain, ×400: elongation and focal fusion of rete ridges with basal layer hyper-pigmentation. H&E, hematoxylin and eosin.

When BN is associated with unilateral breast hypoplasia and/or other cutaneous, muscular, or skeletal defects, it is termed BN syndrome (6).

There are a few cases that have been reported in the literature with atypical presentation of BN that is bilateral symmetrical/or asymmetrical BN covering the back, chest, or/and the upper limbs (4,6-11), mostly in the Indian population and adolescent males.

In female patients, a few cases of BN have been reported with unusual locations, including the left flank, lower back, left side of neck, left arm (12), right knee (13), and one case with bilateral involvement of the lower limbs and genitalia (14) with/without hypertrichosis and associated anomalies.

The finding of multiple bilateral BN is rare especially among female patients. Females with BN usually present with less hyperpigmentation and with no hypertrichoses because of its androgen dependency (15). A case series with 47 patients with atypical BN was studied, and it was found that only 8 of the 47 patients (17%) (six males and two were females) had hypertrichoses (15). In another report concerning 12 cases with atypical BN presentation of BN, 5 out of 12 had no hypertrichosis (12).

To the best of our knowledge, bilateral BN has not yet been reported in the Arabian gulf countries. Our case represents an acquired, non-syndromic atypical BN in a Saudi female, which is a rare presentation.

## **Conclusions**

In conclusion, we present this case to emphasize that the spectrum of Becker's melanosis includes lesions without AME Case Reports, 2019 Page 3 of 3

the conventionally associated manifestations, which are commonly believed to be essential for the diagnosis of Becker's melanosis.

## **Acknowledgments**

None.

## **Footnote**

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Written informed consent was obtained from the patient for publication of this manuscript and any accompanying images.

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