

## LOSS OF PIGMENT IN BECKER'S MELANOSIS

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## Summary

Two male patients with Becker's melanosis are described. The observation of depigmentation and leucotrichia in the lesion in one of them is regarded extremely unusual. The histopathological features comprised of marked acanthosis, papillomatosis, increased basal pigmentation and hyalinization of dermal connective tissue. Focal areas of loss of basal pigment were attended by pigment incontinence and dermal inflammation.

Becker's melanosis<sup>1</sup> is usually seen as an irregularly demarcated area showing hyperpigmentation, thickening of the skin and hypertrichosis in the shoulder region. The lesion invariably starts as a slightly thickened patch of pigmented skin which remains stationary for some time with subsequent appearance of hypertrichosis years after

its onset<sup>2,3</sup>. The degree of hyperpigmentation and hypertrichosis varies from lesion to lesion. The present report highlights the observation of loss of skin and hair pigment from the lesion in one of the two patients of Becker's melanosis described herein.

## Case Reports

Case 1: 40 years old male presented with an asymptomatic pigmented hairy lesion on the left shoulder of 10 years' duration. There were no other complaints. Examination showed an irregular area of thickened skin with increased pigmentation and hypertrichosis (Fig. 1). A skin biopsy was taken for histological examination.

Case 2: 45 years old male complained of a hairy pigmented lesion on the left shoulder of 20 years' duration. The patient became concerned when 6 months prior to patients' hospital visit, his wife observed some white spots appearing in the lesion. There was no history of preceding redness, itching or trauma in the lesion. Examination revealed a large area of

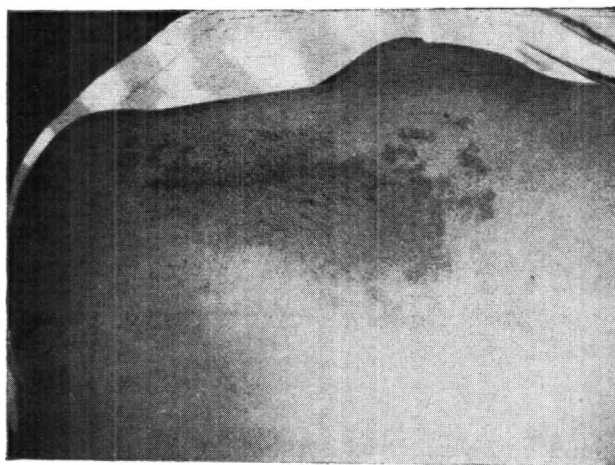


Fig. 1 Case 1. Becker's melanosis on the left upper back

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hyperpigmented thickened skin with hypertrichosis over the left shoulder extending on to the arm (Fig. 2). The middle and the upper part of the lesion showed depigmentation and leucotrichia. There were no patches of depigmentation elsewhere on the body. A skin biopsy including the depigmented spot was performed.



**Fig. 2** Case 2. Becker's melanosis on the left shoulder showing areas of depigmentation and leucotrichia

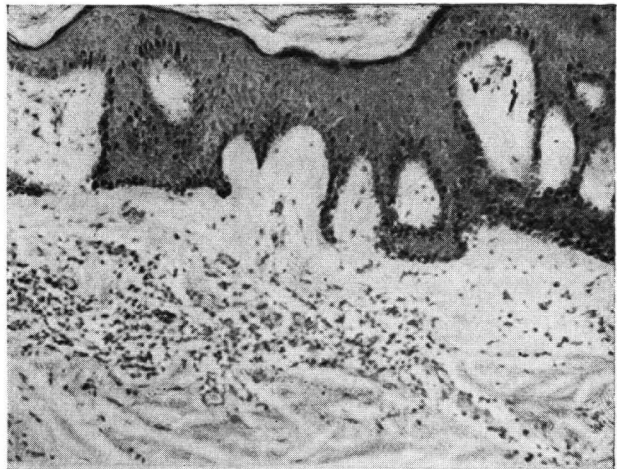
melanophages and a moderate perivascular mononuclear inflammatory infiltrate (Fig. 3). The hair follicles were somewhat hyperplastic in sections from case 2. The elastic tissue stains did not reveal any notable feature.

**Comment**

The clinical features of Becker's melanosis appearing during the 2nd or 3rd decade of life in the form of initial hyperpigmentation with gradual thickening and corrugation in the center and subsequent hypertrichosis unilaterally on the shoulder are fairly distinctive. Rarely multiple lesions on sites other than shoulder have been observed<sup>3</sup>. The natural course of the lesion is that invariably with passing time, it becomes increasingly pigmented and hairy<sup>3</sup>. The appearance of depigmentation and leucotrichia in the lesion in case 2 after 20 years of its onset is extremely un-

**Histopathological Features**

Several serial sections from both the biopsies stained with haematoxylin eosin and elastic Van Gieson were studied. Both lesions showed marked acanthosis with elongation and clubbing of rete ridges (Fig. 3). There was little keratin and papillae were large. Apart from focal areas of loss of basal pigment from the epidermis into the dermis in a few sections from case 2, the epidermis appeared heavily pigmented.



**Fig. 3** Histopathology of Becker's melanosis showing marked acanthosis, papillomatosis, increased basal pigmentation and dermal melanophages, connective tissue hyalinization & Perivascular inflammation (H & E x 44).

The dermis in most sections showed hyalinization of collagen in the elongated papillae, scattered

usual and has not been recorded in the literature. Histopathologically the epidermal and dermal features are more like that of a soft epidermal nevus with marked acanthosis papillomatosis and little keratin and hyalinization of the papillary connective tissue. The pilar structures are not remarkably altered. Hypermelanisation of the basal cells and the presence of melanophages in the superficial dermis has been ascribed to increased production of melanosomes within the melanocytes<sup>4</sup>. The number and the size of the melanosome complexes within the keratinocytes is also increased. In the presence of increased activity of melanocytes, the observed occurrence of depigmentation and leucotrichia in a lesion of Becker's

melanosis is interesting. Is it possible that the loss of pigment is related to some autoimmune phenomenon involving the melanocytes?

#### References

1. Becker SW: Concurrent melanosis and hypertrichosis in distribution of nevus unis lateris. *Arch Derm* 60:155, 1949
2. Copeman PWM, Jones EW: Pigmented hairy epidermal nevus (Becker) *Arch Derm* 92:249, 1965
3. Mascaro JM, Mascaro C, Pinol Aguade J: Historia natural del nevus de Becker *Med Cutan* 4:437, 1970.
4. Gebhart W, Kidd RL, Niebauer G: Beckersche Melanosis, *Arch Derm Forsch* 241:166, 1971