# **UC Davis**

# **Dermatology Online Journal**

### **Title**

Hyperpigmented palmar plaque: An unexpected diagnosis of Bowen disease

#### **Permalink**

https://escholarship.org/uc/item/77c4n65b

### Journal

Dermatology Online Journal, 19(6)

#### **Authors**

Wilmer, Erin M Lee, Kachiu C Higgins II, H William et al.

### **Publication Date**

2013

#### DOI

10.5070/D3196018573

# **Copyright Information**

Copyright 2013 by the author(s). This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at <a href="https://creativecommons.org/licenses/by-nc-nd/4.0/">https://creativecommons.org/licenses/by-nc-nd/4.0/</a>

Peer reviewed

# Volume 19 Number 6 June 2013

### **Photo Vignette**

Hyperpigmented palmar plaque: An unexpected diagnosis of Bowen disease.

Erin N. Wilmer MD<sup>1</sup>, Kachiu C. Lee MD MPH, H William Higgins II MD MBE<sup>1</sup>, Antonio P. Cruz MD<sup>1</sup>

**Dermatology Online Journal 19 (6): 16** 

<sup>1</sup>Brown University Department of Dermatology, Providence, Rhode Island

### **Correspondence:**

Kachiu C. Lee 593 Eddy St, APC#10 Providence, RI 02903 Telephone: 401-444-7959

Email: kachiu@gmail.com

### Abstract:

An unusual case of pigmented Bowen disease on the palm is presented.

# **Case Report:**

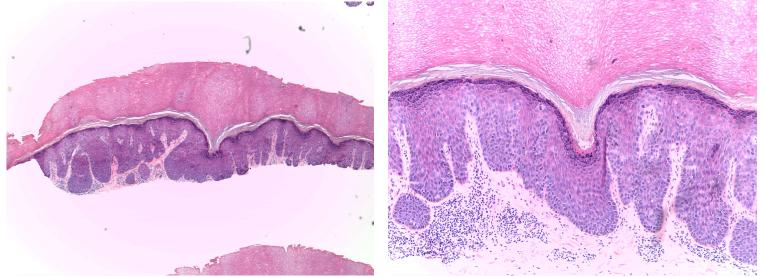
A 48-year-old man presented with a 15-year history of a persistent hyperpigmented plaque on his left palm. The plaque was asymptomatic and had never been treated because it had been diagnosed as a seborrheic keratosis initially. The patient presented with concern that the plaque had been enlarging rapidly over the past 6 months. There was no personal or family history of skin cancer or skin disease. Past medical history was non-contributory.

Physical exam revealed a 1.5 x 1.0 cm dark brown hyperkeratotic plaque on the palm of the left hand (Figure 1). The surrounding skin was unremarkable and the remainder of the full body skin exam was normal. A shave biopsy of the plaque was performed and histologic examination revealed full-thickness epidermal atypia with loss of maturation (Figures 2a and 2b), consistent with Bowen disease (BD).

The lesion was surgically excised with no evidence of recurrence at 1 year.



Figure 1. Hyperpigmented palmar plaque.



**Figure 2.** Histology of Bowen disease. (a) Acanthosis and full-thickness atypia (hematoxylin and eosin at 4x magnification). (b) Full thickness atypia and disordered maturation

## **Discussion:**

Bowen disease, also known as squamous cell carcinoma in situ, is uncommon in African Americans. When it does occur, it typically presents as a scaly, well-defined plaque with a flat, velvety or verrucous surface that is often pigmented and may resemble melanoma [1-3]. In Caucasians, BD most commonly affects the head and neck, followed by the lower limbs and upper limbs [4]. In a review of 1001 cases, the palmar surface was never involved [4]. However, in African Americans, the majority of BD manifests on non-sun exposed skin, particularly the lower extremities [1, 2, 5].

Squamous cell carcinoma (SCC) also typically occurs on non-sun exposed areas in black patients [6, 7]. SCC is the most common skin cancer in African Americans and tends to be more aggressive, with higher rates of invasion and metastasis than SCC in Caucasians [1-3]. SCC-associated mortality has been estimated at 17-30% in African Americans [1, 7, 8]. Therefore, early diagnosis and management of BD is especially important in this patient population.

The lesion presented in this case was initially diagnosed as a seborrheic keratosis and consequently monitored for several years without intervention. However, rapid growth of the plaque raised concern for malignancy. The patient's Fitzpatrick skin type, atypical location of the lesion, and presence of pigmentation made the clinical diagnosis challenging and ultimately prompted a biopsy.

It is important to note that seborrheic keratosis and BD can coexist. There are several reports of pigmented BD arising out of seborrheic keratosis [9-12]. A high index of suspicion is required for all atypical palmar lesions and biopsy is frequently warranted.

### References

- 1. Halder RM, Bang KM. Skin cancer in blacks in the United States. Dermatol Clin. 1988 Jul;6(3):397-405. [PMID: 3048822]
- 2. Halder RM, Bridgeman-Shah S. Skin cancer in African Americans. Cancer. 1995 Jan 15;75(2 Suppl):667-73. [PMID: 7804993]
- 3. Gloster Jr. HM, Neal K. Skin cancer in skin of color. J Am Acad Dermatol. 2006 Nov; 55(5):741-60;quiz 761-4. [PMID: 17052479]
- 4. Kossard S, Rosen R. Cutaneous Bowen's disease. An analysis of 1001 cases according to age, sex, and site. J Am Acad Dermatol. 1992 Sep;27(3):406-10. [PMID:1401276]
- 5. Mora RG, Perniciaro C, Lee B. Cancer of the skin in blacks. III. A review of nineteen black patients with Bowen's disease. J Am Acad Dermatol. 1984 Oct;11(4 Pt 1):557-62. [PMID: 6490979]
- 6. Fleming ID, Barnawell JR, Burlison PE, Rankin JS. Skin cancer in black patients. Cancer. 1975 Mar;35(3):600-5. [PMID:1111931]
- 7. Mora RG, Perniciaro C. Cancer of the skin in blacks. I. A review of 163 black patients with cutaneous squamous cell carcinoma. J Am Acad Dermatol. 1981 Nov;5(5):535-43. [PMID:7298919]

- 8. Mora RG. Surgical and aesthetic considerations of cancer of the skin in the black American. J Dermatol Surg Oncol. 1986 Jan;12(1):24-31. [PMID:3941190]
- 9. Cameron A, Rosendahl C, Tschandl P, Riedl E, Kittler H. Dermatoscopy of pigmented Bowen's disease. J Am Acad Dermatol. 2010 Apr;62(4):597-604. doi: 10.1016/j.jaad.2009.06.008. Epub 2010 Jan 15. [PMID:20079953]
- 10. Marschall SF, Ronan SG, Massa MC. Pigmented Bowen's disease arising from pigmented seborrheic keratoses. J Am Acad Dermatol. 1990 Sep;23(3 Pt 1):440-4. [PMID:2145328]
- 11. Terada T. Pigmented Bowen disease arising in pigmented reticulated seborrheic keratosis. Int J Clin Oncol. 2010 Dec;15(6):608-10. doi: 10.1007/s10147-010-0086-1. Epub 2010 Apr 28. [PMID:20425131]
- 12. Monteagudo JC, Jorda E, Terencio C, Llombart-Bosch A. Squamous cell carcinoma in situ (Bowen's disease) arising in seborrheic keratosis: three lesions in two patients. J Cutan Pathol. 1989 Dec;16(6):348-52. [PMID:2533222]