

The value of pre-surgical photography in the management of melanoma

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Key words: melanoma, preventive medicine, photography, dermoscopy

Citation: Zalaudek I, Deinlein T, Woltsche N, Kupsa R, Ambros-Rudolph C. The value of pre-surgical photography in the management of melanoma. *Dermatol Pract Concept.* 2017;7(2):4. DOI: <https://doi.org/10.5826/dpc.0702a04>

Received: December 15, 2016; **Accepted:** January 14, 2017; **Published:** April 30, 2017

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Funding: None.

IRB statement: It was waived, because we did no studies in humans.

Patient consent: The explicit written informed consent of the patient for publication was given.

Competing interests: The authors have no conflicts of interest to disclose.

All authors have contributed significantly to this publication.

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Introduction

While dermoscopy has become standard procedure in the diagnosis and management of patients with skin lesions, clinical and dermoscopic photographic documentation of lesions scheduled for biopsy are only infrequently performed in everyday practice [1-7].

Herein we present a case of a young woman who developed a re-pigmentation within the scar of an excised primary melanoma and highlight the importance of pre-surgical clinical photography in her management.

Case Presentation

A 23-year-old woman with multiple nevi presented because of a brown, sharply demarcated plaque on her left shoulder (Figure 1A arrow), which she recently

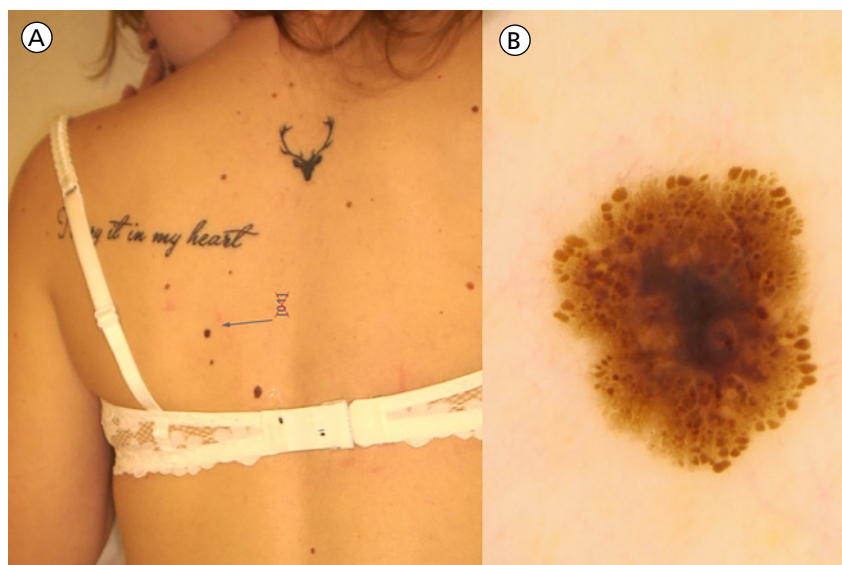


Figure 1. (A) Clinical picture showing a well-defined, roundish, brown macula on the left shoulder. (B) Dermoscopy reveals irregular brown globules varying in size at the periphery and a dark-brown structureless area in the center of the lesion. [Copyright: ©Zalaudek et al.]

noticed. Upon dermoscopy the lesion exhibited irregularly sized brown globules and a central dark-brown struc-

tureless area (Figure 1B). Based on this pattern, a diagnosis of melanoma was suspected and the lesion was excised.

However, before excision, a clinical overview of her back, a digital dermoscopic image of the lesion, as well as some of the surrounding nevi was performed.

Histopathology confirmed the clinical suspect and revealed a melanoma (0.5 mm tumor thickness, mitosis < 1/mm²). Imaging examinations were unremarkable and re-excision with 1 cm safety margins was performed. Histopathology of the re-excision showed no further tumoral evidence.

At follow-up 6 months later, a linear brown pigmentation extending from the lower border into the scar of the primary tumor was noticed. Dermoscopically, a structureless brown to gray pigmentation was observed (Figure 2B arrow). Side-by-side review of the clinical overview image taken at baseline and at the current visit (Figure 3) revealed a small pigmented nevus in about 1 cm distance at the lower area of the primary melanoma (Figure 3A red arrow). Based on this observation, a diagnosis of an incompletely removed nevus during the surgical procedure of the re-excision of the primary melanoma was made and the lesion was scheduled for digital follow-up. At follow-up 6 and 12 months later, the lesions remained completely unchanged.

Conclusion

Ferrara et al. showed that the addition of clinical information including pre-surgical images improves the diagnostic accuracy and confidence of pathologists when dealing with melanocytic skin tumors that are difficult to interpret. Moreover, Bauer and coworkers reported that review of dermoscopic images can help in avoiding sampling errors in histopathology [1-7].

Our case adds further support to the value of pre-surgical photographic documentation of the clinical management of patients with pigmented skin lesion. In our patient, the diagnosis of an incompletely removed nevus could

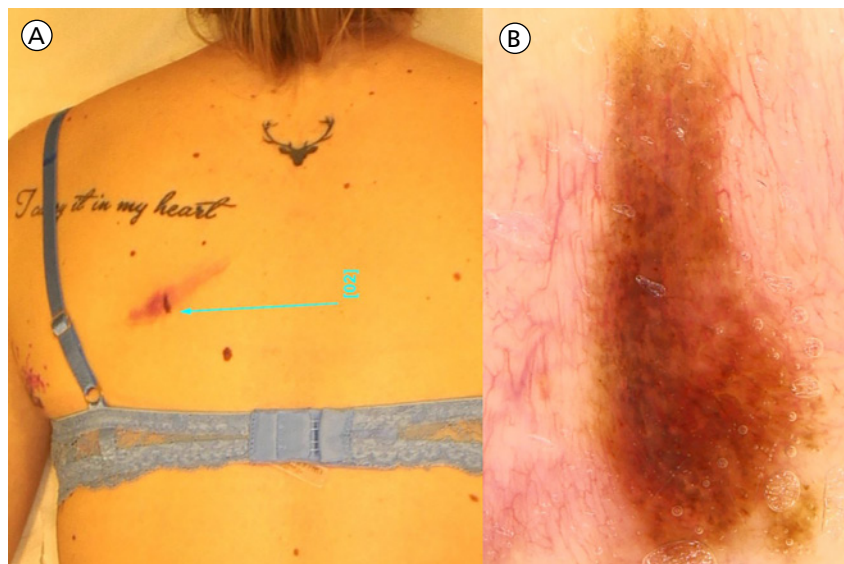


Figure 2. (A) Linear homogenous brown pigmentation extending from the lower border into the scar of the primary tumor. (B) Structureless brown to gray pigmentation dermoscopically. [Copyright: ©Zalaudek et al.]

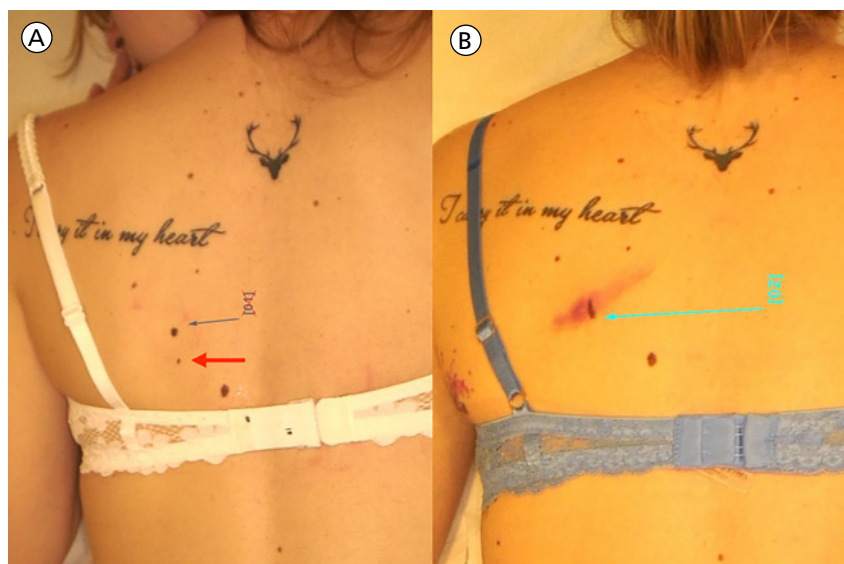


Figure 3. Side-by-side review of the follow-up (B) and baseline image (A) revealed a small pigmented nevus at a distance of about 1 cm from the lower area of the primary melanoma (A, red arrow). [Copyright: ©Zalaudek et al.]

only be made because review of the pre-surgical images revealed the presence of a small pigmented nevus at the side, at which the re-excision of the primary melanoma had been performed. In fact, the clinically suspected diagnosis of persisting nevus within a scar was further confirmed by digital monitoring revealing no changes over a follow-up period of one year.

Hence, we suggest that pre-surgical digital photography become a routine procedure in the management of patients with skin tumors.

References

1. Ferrara G, Argenyi Z, Argenziano G, et al. The influence of clinical information in the histopathologic diagnosis of melanocytic skin neoplasms. *PLoS One*. 2009;4:e5375.
2. Bauer J, Metzler G, Rassner G, Garbe C, Blum A. Dermatoscopy turns histopathologist's attention to the suspicious area in melanocytic lesions. *Arch Dermatol*. 2001;137:1338-1340.
3. Ferrara G, Argenziano G, Soyer HP, et al. Dermoscopic an histopathological diagnosis of equivocal melanocytic lesions. An interdisciplinary study on 107 cases. *Cancer*. 2002;95:1094-1100.

4. Ferrara G, Argenziano G, Cerroni L, et al. A pilot study on combined dermoscopic-pathological approach to the telediagnosis of melanocytic skin neoplasms. *J Telemed Telecare*. 2004;10:34-38.
5. Corona R, Mele A, Amini M, et al. Interobserver variability on the histopathological diagnosis of cutaneous melanoma and other pigmented skin lesions. *J Clin Oncol*. 1996;14:1218-1223.
6. Farmer ER, Gonin R, Hanna MP. Discordance in the histopathological diagnosis of melanoma and melanocytic nevi between expert pathologists. *Hum Pathol*. 1996;27:528-531.
7. Soyer HP, Kenet RO, Wolf ICH, Kenet BJ, Cerroni L. Clinicopathological correlation of pigmented skin lesions using dermoscopy. *Eur J Dermatol*. 2000;10(1):22-8