

Published in final edited form as:

Arch Dermatol. 2009 February ; 145(2): 224. doi:10.1001/archdermatol.2008.522.

Semitranslucency in Dermoscopic Images of Basal Cell Carcinoma

Dr William V. Stoecker, MS, MD, Dr Isabel Kolm, MD, Dr Harold S. Rabinovitz, MD, Ms Margaret C. Oliviero, ARNP, Ms Jin Xu, BS, and Dr Joseph M. Malter, MD

The Dermatology Center, Rolla, Missouri (Drs Stoecker and Malter and Ms Xu); University Hospital Zurich, Zurich, Switzerland (Dr Kolm); and Skin and Cancer Associates, Plantation, Florida (Dr Rabinovitz and Ms Oliviero)

The clinical feature Semitranslucency, defined as a semiliquid or jellylike appearance, is a useful optical phenomenon for the identification of basal cell carcinoma (BCC).¹ Semitranslucent areas in dermoscopic images of BCC also display the smooth, jellylike appearance of the clinical counterpart. The color ranges from reddish pink, usually seen in the thickest areas, to dull orange, often in a peripheral location (Figure 1), to gray (Figure 2 and Figure 3, insets). Figures 1 through 3 are noncontact polarized dermoscopic images of BCC, and Figure 4 is the histopathologic view of Figure 3.

Semitranslucency, which is easily appreciated without visual aids in larger BCCs, can be best appreciated with non-contact polarized dermoscopic images. Lighter colors in dermoscopic images, such as those appearing with the semitranslucency phenomenon, have previously been shown to be best preserved with non contact polarized dermoscopy.² The typical color is absent in contact polarized images, but the contrast in smoothness with the surrounding areas, the most important aspect of the jelly like phenomenon, still allows appreciation of semitranslucency in some contact polarized images (Figure 2, inset). The jellylike appearance may be lost in nonpolarized contact images (Figures 1 and 3, insets). Histopathologic examination of 10 BCCs showed that areas of semitranslucency possess basaloid tumor nodules close to the surface, with a diminished epidermal thickness and a diminished collagen layer (Figure 4). This histopathologic constellation allows transmission of light to an appreciable depth of the skin and reflection from within the tumor. Further studies of this optical phenomenon are needed to determine which histopathologic subtypes of BCC are best correlated with semitranslucency.

References

1. Vanker AD, Stoecker WV. An expert diagnostic program for dermatology. *Comput Biomed Res.* 1984; 17(3):241–247. [PubMed: 6375947]
2. Benvenuto-Andrade C, Dusza SW, Agero AL, et al. Differences between polarized light dermoscopy and immersion contact dermoscopy for the evaluation of skin lesions. *Arch Dermatol.* 2007; 143(3):329–338. [PubMed: 17372097]



Figure 1.

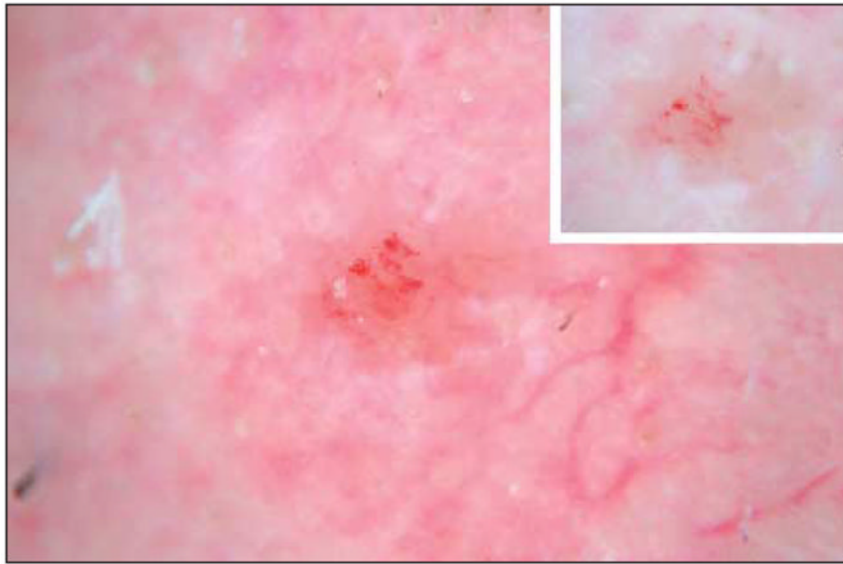


Figure 2.



Figure 3.



Figure 4.