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Dermatoscopy and Skin Imaging: The section to share your morphological observations and scientific insights

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Editorial

Dear Colleagues,

It is a great pleasure and honor to be the Editor of the Dermatoscopy and Skin Imaging Section in *Dermatology Practical and Conceptual*. We live in very exciting times in clinical dermatology. The use of primary morphology in diagnosis is natural for dermatologists and fundamental to our discipline; we are trained to diagnose skin disease based on the recognition of pathological patterns in the skin. Thus, the use of non-invasive skin imaging enhances our morphological skills and adds depth to our view. With non-invasive imaging devices, such as dermatoscopy and confocal microscopy, we are able to see new structures and patterns under the skin's surface that represent reproducible tissue pathology; this is dermatopathology at the bedside!

The insights gained from recognitions of these new patterns have not only improved our diagnostic accuracy in the recognition of skin cancer [1,2], but have also opened new roads into the research of disease pathology, pathophysiology and treatment. As just one example, we are able, for the first time, to document and monitor change in pigmented lesions and better understand their rates and pattern of growth. The SONIC study (study of nevi in children) has been documenting and following nevus evolution as children enter adolescence, using digital photography and dermatoscopy [3, 4]. We have shown that subsets of nevi that are recognized by their dermatoscopic pattern, namely, reticular and globular nevi, are distinct. Globular-patterned nevi occur more frequently in the upper part of the body, tend to be larger in diameter and are more likely to occur in individuals with fair pigmentation phenotype and increased nevus counts; in contrast, reticular nevi are more frequent in the lower trunk and extremities, tend to be smaller in size, and constitute the main nevus pattern in individuals with dark skin phenotype and lower nevus counts [3]. Moreover, nevi tend to retain their dermatoscopic pattern over time, so that cross-over between reticular and globular patterns is rare [4]. Pellacani et al have followed the evolution of reticular and globular nevi using reflectance confocal microscopy and have shown that growth of nevi tends to occur within the same anatomic compartment-reticular nevi mostly grow along the basal layer of the epidermis, while in globular nevi, nests mostly grow in the superficial dermis-accounting for the retention of dermatoscopic pattern during evolution of nevi [5]. Zalaudek et al have hypothesized that nevi with globular pattern and nevi with reticular pattern represent different pathways in nevus evolution and, furthermore, that melanomas with predominantly reticular pattern are fundamentally different from melanomas with predominantly globular pattern [6].

Importantly, in the first issue of *Dermatology Practical and Conceptual,* Beer, Kittler and coworkers showed that melanomas that harbor a predominantly globular pattern (with large nests and aggregates on histopathology) grow faster than melanomas that show a predominantly reticular pattern (with lentiginous or small-nested pattern on histopathology) [7]. These findings are also in line with the previous observation of Liu et al that melanomas can be divided into subsets of slow-growing or more rapidly growing melanomas [8]. Thus, pattern of disease attests to biological behavior. As new biomarkers become available to better characterize subsets of diseases such as melanoma, we dermatologists can spearhead these efforts by pointing out the existence and characteristics of subsets of diseases via recognition of their unique morphology and then by correlating those morphological subsets with a unique molecular profile [9]. This is translational science at its best!

And this is precisely the aim of the Dermatoscopy and Skin Imaging Section in *Dermatology Practical and Conceptual*. This section offers an exciting opportunity for all of us to make new clinical and scientific observations at the bedside and to communicate their significance for diagnosis, prognosis or treatment. All that's needed is a pair of eyes, in front of these eyes, an imaging device and of course patients, and behind these eyes, a curious and thoughtful mind. With this setup in place, scientific discoveries, clinical observations and new hypotheses will be inevitable! Without a doubt, the members of the International Dermoscopy Society (IDS) have been exemplary for precisely that. The abundance of bedside observations, interactive exchange of ideas and collegial spirit at the website of the IDS is without peer. Thus, the fact that *Dermatology Practical and Conceptual* is the official journal of the IDS is promising for great clinical and scientific merit.

Finally, please allow me introduce myself. I graduated from medical school at the Tel Aviv University. After completion of my dermatology residency at Sheba Medical Center in Israel, I decided to dedicate my career to the diagnosis and treatment of cancers of the skin. I was very fortunate to be trained by giants in the field, dedicated teachers and fruitful researchers. I completed a cutaneous oncology clinical and research fellowship at the Dermatology Service, Memorial Sloan-Kettering Cancer Center in New York. My mentors, Allan Halpern and Ashfaq Marghoob, have been exceptional role models for clinician-scientists. I learned that every patient is a potential source for a new scientific observation, and every new scientific discovery can have implications and merit for better patient care. They have also taught me that the wealth of scientific insights needs to be clearly communicated to the scientific community and lay public by means of lectures and publications. They tirelessly practice and teach what they preach! Subsequently, I was given the once in a lifetime opportunity by Bernie Ackerman to train as dermatopathology fellow at the Ackerman Academy of Dermatopathology in New York, an institution dedicated to excellence in teaching. The year I spent at the Academy under the phenomenal mentorship of Bernie Ackerman, Geoff Gottlieb and Joan Mones has ingrained in me the need for precision in language and diagnosis, clarity of thought and accountability in research. My mentor and friend Harold Rabinovitz from the University of Miami has taught me the virtue of scientific sharing and has captivated me with his endless enthusiasm for research and technology. Without a doubt, a highlight of my career as a physician-scientist has been the recognition of my efforts with the "Paolo Carli Award for Scientific Excellence and Contributions to Dermoscopic Research" given by the IDS at the 2nd World Congress of Dermoscopy in Barcelona (2009). At present, I am the director of the Dermato-Oncology clinic at the Department of Dermatology of Sheba Medical Center, a large tertiary academic medical center in Israel, and a research consultant at the Dermatology Service of Memorial Sloan-Kettering Cancer Center, New York. In my practice, I integrate skin cancer surveillance and detection with skin imaging technologies, including dermatoscopy, total body photography, and reflectance confocal microscopy.

I strongly believe *Dermatology Practical and Conceptual* under the leadership of Harald Kittler will propagate the spirit of observational and scientific discoveries onto the younger generations. This spirit has been given thrust by no one like Bernie Ackerman.

Readers, please share your observations, discoveries and theories with the rest of us. We enthusiastically look forward to that.

Yours truly,
Alon Scope, M.D.
Section Editor
Dermatoscopy and Skin Imaging

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