to respond to the survey, thus creating response bias and overestimating the beneficial effect of photography.

Overall, this survey study revealed that dermatopathologists find clinical photography most beneficial in the diagnosis of inflammatory skin diseases, and they would like to receive photographs more frequently. They prefer a convenient method of delivery, most commonly a printed-out photograph attached to the requisition slip.

Melinda R. Mohr, MD
S. H. Sathish Indika, MS
Antoinette F. Hood, MD

Accepted for Publication: June 4, 2010.
Author Affiliations: Department of Dermatology (Drs Mohr and Hood) and Epidemiology and Biostatistics Core (Mr Indika), Eastern Virginia Medical School, Norfolk.
Correspondence: Dr Mohr, Department of Dermatology, Eastern Virginia Medical School, 721 Fairfax Ave, Ste 200, Norfolk, VA 23507 (melinda.mohr@gmail.com).
Author Contributions: All authors had full access to all of the data in the report and take responsibility for the integrity of the data and the accuracy of the data analysis. *Study concept and design:* Mohr and Hood. *Acquisition of data:* Mohr. *Analysis and interpretation of data:* Mohr, Indika, and Hood. *Drafting of the manuscript:* Mohr and Indika. *Critical revision of the manuscript for important intellectual content:* Hood. *Statistical analysis:* Indika. *Study supervision:* Hood.
Financial Disclosure: None reported.
Additional Contributions: We thank the members of the ASDP who participated in this study and the Epidemiology and Biostatistics Core at Eastern Virginia Medical School, Norfolk, and Old Dominion University, Norfolk, for assisting with statistical analysis.

1. Fogelberg A, Ioffreda M, Helm KF. The utility of digital clinical photographs in dermatopathology. *J Cutan Med Surg.* 2004;8(2):116-121.
2. Kutzner H, Kempf W, Schärer L, Requena L. Optimizing dermatopathologic diagnosis with digital photography and internet: the significance of clinicopathologic correlation [in German]. *Hautarzt.* 2007;58(9):760-768.

PRACTICE GAPS

Submitting Clinical Photographs to Dermatopathologists to Facilitate Interpretations

Advances in immunohistochemical stains, molecular analysis, and laboratory technology have facilitated dermatopathologic diagnostic accuracy. Nevertheless, patients and clinicians are often frustrated when dermatopathologists render nonspecific diagnoses, which may lead to diagnostic and/or therapeutic uncertainty. Given the importance of clinicopathologic correlation (CPC), a practice gap exists between what dermatopathologists desire and what the clinicians provide.[1,2]

Mohr et al point out that one of the most important tools used to assist accurate dermatopathologic diagnosis is the information supplied on the dermatopathology form accompanying tissue specimens. They also report that dermatopathologists find the addition of a clinical photograph useful in rendering a microscopic diagnosis, especially when dealing with inflammatory skin diseases. The use of clinical photographs may be particularly helpful when dermatopathologists receive specimens with an inadequate clinical description on the dermatopathology form, which may be more of a concern with specimens submitted by nondermatologists who have less CPC experience.

Although clinical photographs are desired, it is extremely infrequent for a dermatopathologist to be provided with one. Barriers to sending clinical photographs with biopsy specimens include the time it takes to create and implement standard operating procedures (SOP), which include identifying the body region to be photographed, obtaining consent from the patient, taking the digital photograph, downloading the photographic file, labeling the photograph, and either printing or electronically sending the picture to the pathologist. Other barriers are limited computer file storage space; costs of obtaining 1 or more digital cameras for the physician office; and compliance with the secure data transfer standards of the Health Insurance Portability and Accountability Act and Health Information Technology for Economic and Clinical Health. It is also possible that some patients may object to photography, particularly of specific body parts.

This gap between what dermatopathologists desire and what the clinicians provide can be narrowed by improving the quality of information supplied by the clinician to the dermatopathologist. Education directed at office efficiency should include instruction on efficient processes to incorporate patient photography. Mohr et al underscore that patient care will benefit when clinicians improve the quality and quantity of the information provided, and they encourage incorporation of photography as part of routine biopsy procedures. Development of a more comprehensive way of communicating information to dermatopathologists is needed. Clinician-friendly pathology forms and reminder systems to include clinical photographs may help.

Considering patient volume and increasing time limitations of office visits, it would optimal for clinicians to train an assistant to take and process the photographs for relevant patients. The SOP should be defined for this process to assist personnel in implementation without loss of efficiency. Creating an SOP for a proper and complete provision of information including completion of requisition forms and taking clinical photographs will help establish uniformity of photographic information to the dermatopathologist.

Hard copies of photographs are not always necessary. Digital technology provides a variety of media to safely transmit images, including secure Internet connections and storage on compact discs and flash drives, to protect the confidentiality of patient photographic information, usually considered personal health information. Data transfer between dermatologists and dermatopathologists can be optimized to maximize the quality of dermatopathology diagnosis.

Alejandra Vivas, MD
Robert S. Kirsner, MD, PhD

Author Affiliations: Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, Florida.
Correspondence: Dr Kirsner, Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, 1600 NW 10th Ave, RMSB, Room 2023-A, Miami, FL 33136 (rkirsner@med.miami.edu).
Financial Disclosure: None reported.

1. Kutzner H, Kempf W, Schärer L, Requena L. Optimizing dermatopathologic diagnosis with digital photography and internet: the significance of clinicopathologic correlation [in German]. *Hautarzt*. 2007;58(9):760-768.
2. Fogelberg A, Ioffreda M, Helm KF. The utility of digital clinical photographs in dermatopathology. *J Cutan Med Surg*. 2004;8(2):116-121.

Lentiginous Melanoma In Situ Treatment With Topical Imiquimod: Need for Individualized Regimens

Melanoma in situ, lentiginous type (LM), is a precursor lesion for invasive malignant melanoma, lentiginous type (LMM). Already the most prevalent subtype of in situ melanoma, LM has been shown to be increasing in incidence.[1] Currently, nonsurgical patients with LM have no treatment alternative but irradiation and so must endure the associated adverse effects of this treatment. In addition, recurrence following standard therapies is unacceptably high (8%-20%).[2] For these reasons, a new effective therapy for LM that provides local control, prevents progression to LMM, and decreases morbidity and mortality is clinically desirable.

Small studies have reported successful treatment of LM with imiquimod, 5%, cream. The present case series highlights 15 LM lesions in 14 patients treated with topical imiquimod. Histologic tissue specimens obtained before, during, and after treatment were evaluated to assist in directing patient management and in providing objective posttreatment histopathologic response.

Methods. This study was approved by the Saint Louis University institutional review board. After diagnostic biopsy, patients were offered surgical excision or treatment with topical imiquimod, 5%. The risks of each treatment were thoroughly discussed. Patients began imiquimod therapy with topical application 5 to 7 times each week, and this regimen was altered based on clinical response. Patients kept a log of treatment days and were observed closely during treatment. Pretreatment and posttreatment assessments were performed histologically and clinically in all patients. Intratreatment 4-mm punch biopsy specimens were obtained in 6 of the 14 patients. Imiquimod treatment was discontinued only after the tumor clinically resolved with no remaining inflammatory response and biopsy specimens showed no residual tumor histologically.

Results. We report 15 LM lesions in 14 patients treated effectively with imiquimod, 5%, cream as determined by clinical and histopathologic assessment. The patient demographics, treatment applications, and histologic and clinical findings are summarized in the **Table**. Patients were treated over 12 to 20 weeks with a range of 47 to 106 treatment applications (average, 79.5). All patients agreed to posttreatment biopsies, and 6 of the 14 agreed to intratreatment biopsies. Biopsies were performed dur-

Table. Patient Characteristics and Treatment Summary

Patient No./ Sex/Age, y	Lesion Location	Type of Lesion	Treatment Duration, d	Findings of Intratreatment Histologic Evaluation	Findings of Posttreatment Histologic Evaluation	Clinical Posttreatment Follow-up, mo
1/F/82	Cheek	New	65	NP	Prominent basilar pigmentation and solar lentigo, at 2 and 13 mo, respectively	31
2/M/90	Cheek	Recurrence	100	NP	Postinflammatory hyperpigmentation, 2 mo	28
3/M/80	Cheek	Recurrence	84	NP	Dermal scar, actinic keratosis, 10 mo	30
4/M/59	Scalp	Recurrence	62	NP	Dermal fibrosis, 4 mo	21
5/M/82	Nose	Recurrence	84	NP	Dermal fibrosis, 2 mo	20
6/M/86	Neck	New	106	Postinflammatory pigment alteration, 47 d	Postinflammatory pigment alteration, 0 mo	21
7/M/77	Scalp	New	60	NP	Postinflammatory pigment alteration, 1 mo	14
8/F/71	Nose	New	85	NP	Solar lentigo, 12 mo	32
9/F/95	Cheek	New	84	Lichenoid dermatitis, postinflammatory pigment alteration, 60 d	Vacuolar interface dermatitis, PIPA, solar elastosis, 0, 2, and 4 mo, respectively	11
10/M/78	Cheek	Recurrence	84	Lichenoid dermatitis, 71 d	Solar elastosis, solar lentigo, 2 mo	6
11/F/70	Nose	New lesion	47	Lichenoid dermatitis, 26 d	Dermal lymphocytic infiltrate, 1 mo	1
12/F/71	Nose	New	104	Melanoma in situ, junctional melanocytic proliferation, dense lichenoid infiltrate, 84 d	Lichenoid dermatitis, 0 mo	0
13/M/65	Scalp	New	48	NP	Solar elastosis, actinic keratosis, 0 mo	21
14a/M/87	Neck	New	100	Melanoma in situ, 40 d	Solar elastosis, actinic keratosis, 0 mo	1
14b/M/87	Lateral canthus	New	80	NP	Solar elastosis, actinic keratosis, 0 mo	1

Abbreviations: NP, not performed; PIPA, postinflammatory pigment alteration.