Shave Biopsy May Impair Correct Melanoma Staging

However, concerns that cutting through cancers may disperse cells and harm patients appear unfounded.

BY JANE SALODOF McNEIL Senior Editor

Phoenix — Although cutting through a melanoma is routinely done in shave biopsy, the margin may make reaching an accurate prognosis more difficult, it probably will not harm the patient, Dr. Darrell Rigé said at a clinical dermatology conference sponsored by Medicis.

Dr. Rigé, who is with New York University Medical Center, New York, said that two recently published studies addressed the concern that cutting through certain cancers during a biopsy can disperse tumor cells and worsen prognosis. It probably is not harmful in melanoma patients, he said.

The studies he cited compared excisional margins with shave biopsy margins. In the first study, investigators from Carolinas Medical Center in Charlotte, N.C., reported that 22% of shave biopsies had positive deep margins (Ann. Surg. Oncol. 2007;14:893-98). In the second study, investigators from the Free University Hospital, Amsterdam, found that use of incisional biopsies did not have a negative impact on survival (Ann. Surg. Oncol. 2007;14:1424-30).

At least if you incidentally shave through a melanoma, you “probably haven’t harmed the patient,” Dr. Rigé said. However, you may have harmed your ability to get the right prognosis for the patient.” Thinner melanomas have a better prognosis, he noted, but tumor thickness is harder to determine in patients with deep positive margins.

In the first study, Dr. Richard L. White Jr. and his colleagues analyzed pathology specimens from Jan 1, 2004, through June 30, 2005, for 223 cases of primary melanoma. Although the National Comprehensive Cancer Network and the American Academy of Dermatology have each designated excisional biopsies with narrow margins as the preferred method for diagnosing primary cutaneous melanoma, more than half the biopsies were done with the easier, faster shave technique. The sample comprised 51 excisional biopsies, 44 punch biopsies, and 128 shave biopsies. Thirty-fourths (16%) of the shave biopsies also had positive margins. Positive margins were more common overall (68%), but were mostly wide margins attributable to the punch technique. Only 7% of all punch biopsies had positive deep margins.

Half of all shave biopsies produced positive margins, including the 22% that had positive deep margins. The analysis revealed positive deep margins for 17% of the thinner melanomas sampled by the shave technique. Shave biopsy was most commonly done for thinner melanomas. It also produced samples that were significantly thinner. A review of 36 specimens showed the average biopsy thickness to be 1.41 mm with the shave technique, 3.58 mm with the punch method, and 3.19 mm for excisional biopsies.

“Based on these data,” the authors concluded, “we advocate the use of an excisional biopsy technique for all skin lesions where melanoma is in the differential diagnosis when excision is feasible.”

In the second study, Dr. Paul A.M. van Leeuwen and his colleagues in the Netherlands prospectively studied 471 patients who were diagnosed with stage I and II melanoma (26.7%). Average follow-up was 5 years or more.

The investigators divided the population by biopsy type: wide excision biopsy (279 patients), narrow excision biopsy (109), excision biopsy with positive margins (92), and incision biopsy (31). Biopsy type did not prove to be significant in univariate or multivariate analyses of disease-free survival or overall survival. The presence of residual tumor cells in reexcision specimens for 41 patients also was not significant.

“Incisional biopsies are not recommended, but there is no cause for concern when an excision biopsy turns out to have positive margins,” the authors concluded.

In a telephone interview, Dr. Randall K. Roenigk agreed that both studies make good points, but said that they are not likely to dissuade physicians from doing shave biopsies.

“If you do a shave and miss the depth of the specimen, you miss a key bit of information about the thickness of the melanoma. Your decision-making tree could be compromised,” said Dr. Roenigk, professor of dermatology and chair of the department of dermatology at Mayo Medical School, Rochester, Minn.

On the flip side, it is easier to do a shave biopsy, he said. The time required for an excisional biopsy, the delay in diagnosis until an excisional biopsy can be scheduled, and the reality that some patients won’t come back for the procedure, he suggested, as a result, doing more shave biopsies can mean more melanoma diagnoses, even though excisional biopsies are more aggressive.

From Dr. Roenigk’s perspective, the studies demonstrate the importance of doing deep biopsies even when the suspected melanoma appears thin.

“You shouldn’t be shy about taking extra tissue when you are thinking about a melanoma. It should be a thick, deep shave,” he said. “If you are thinking about melanoma, you shouldn’t worry about the scar.”

Expert Reviews Evidence for Melanoma Excision Margins

BY BRUCE JANCIN Denver Bureau

Maui, Hawaii — Evidence from randomized clinical trials indicates that excision margins of 2 cm are optimal for primary melanomas greater than 2 mm thick, Dr. Merrick Ross said at the annual Hawaii Dermatology Seminar, which is sponsored by Skin Disease Education Foundation.

That’s good news for patients, because 90% of surgical defects resulting from a 2-cm-wide excision margin on the trunk or a proximal extremity can be closed primarily without grafts, noted Dr. Ross, Charles McBride Professor of Surgery and chief of the melanoma section at the University of Texas M.D. Anderson Cancer Center, Houston.

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DR. ROSS

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The centers established 1-cm margins as the standard for thin melanomas, defined as those with a Breslow’s depth of invasion of less than 1 mm. For tumors measuring 1.2 mm in thickness, the researchers used a 1.5 cm margin.

These temporary era of evidence-based excision margins rests upon five prospective randomized trials that attempted to define the margins, optimizing the chance for durable local control while minimizing surgical morbidity and cost.

The current standard is 2 cm, measured from the closest edge of the lesion to the deepest point of the shave. This is true for excision margins of 1-2 cm.

The 2-cm margins for melanomas thicker than 2 mm may be verified by Dr. Ross and other surgical oncologists were arrived at by examining the results of two complementary randomized trials. One was an as-yet-unpublished study by the Swedish Melanoma Study Group that randomized 644 patients with such melanomas to wide excision with either 2- or 4-cm margins. Rates of locoregional recurrence were wholly owned subsidiaries of Elsevier.

Roenigk agreed that Mohs will be a niche procedure in melanoma. It is most likely to prove advantageous for thin melanomas in anatomically difficult locations, such as the head and neck, as well as for lentigo maligna melanoma, in which subclinical disease is often present at a considerable distance from the visible tumor. SDF and this news organization are wholly owned subsidiaries of Elsevier.