Oncologic Accuracy of Shave Biopsy for Malignant Melanoma: A Diagnostic Dilemma

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INTRODUCTION: Most often, the diagnosis of melanoma is established by dermatologists utilizing a skin biopsy. While surgical dogma favors a punch or incisional biopsy which includes the entire depth of the lesion for safe and accurate diagnosis, it is common practice for a shave biopsy to be performed.[1,2] The authors aim to evaluate the adequacy of shave biopsy in the diagnosis of malignant melanoma.

MATERIALS AND METHODS: All patients with biopsy-proven melanoma who had undergone wide local excision during a three-year period (January 2011 to January 2013) were included in the study. Pathology reports from the original shave biopsy and definitive tumor resection specimen were evaluated. Clinical outcomes were assessed in all patients.

RESULTS: During the study period, 534 consecutive patients with primary melanoma were treated with wide excision. The mean age of patient population was 67 years (range, 19 to 98) and median follow-up time was 1.2 years. Shave biopsy was the most common diagnostic modality and was performed in 396 (74.1%) patients. There were 104 (19.4%) patients in which the biopsy type was not specified. The remaining 34 (6.4%) patients had either excisional or incisional biopsies performed. The median tumor thickness in the shave biopsy cohort was 0.85 mm. Based on the results of final pathology, tumor depth underestimation was found in 22 patients (5.6%) and these patients were upstaged accordingly. The revised staging, however, did not result in the recommendation for a wider margin of excision.

CONCLUSION: Shave biopsy is an oncologically adequate technique for the diagnosis and evaluation of malignant melanoma.

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