Regression was once thought to be a negative prognostic factor in primary melanomas, but new findings suggest otherwise.

BY JONATHAN WOLFE, MD

Despite advances in research and treatment, the prognosis of melanoma in many ways remains an anomaly. A number of histologic factors are thought to play a role, and one pointed area of debate in recent years has been the role of regression in primary melanoma. While regression has traditionally been thought to be a negative prognostic factor, recent evidence presents a more complex picture.

THE SIGNIFICANCE OF REGRESSION
Regression has long been thought to prevent proper melanoma thickness measurement, which in turn affected the staging of tumors. The authors of a recent study point out that this was considered to be an indication for sentinel lymph node biopsy (SLNB) in melanoma less than 1mm. The goal of their study was to understand the use of SLNB in thin melanoma and to clarify the role of regression in survival.

The investigators analyzed data collected from 1,693 consecutive patients with stage I-II melanoma. They performed SLNB in 656 patients, finding that regression was present in 349 patients, 223 of which were characterized as thin lesions. They performed SLNB in certain patients with thin melanoma with regression but found that the majority of regional lymph node metastases occurred in patients who did not undergo SLNB. The authors concluded that regression alone should not be a reason to perform SLNB in thin melanoma. Moreover, they suggested that regression can be considered a favorable prognostic factor in patients with stage I-II melanoma.

More recently, another study delved into the influence of regression on the status of the sentinel node. Investigators retrospectively analyzed melanomas undergoing a SLNB, in total 201. Regression was found in 52 melanomas and did not show a statistically significant SLNB status. When melanomas were subdivided by Breslow thickness into four groups, those with regression had a lower frequency of positive sentinel nodes in three of the four groups. It’s important to note, however, that differences did not reach statistical significance in any group. Moreover, researchers found no influence by type of regression or its extension on the sentinel node status.

Importantly, regression was found more frequently in thin melanomas, melanomas located on an axial site, and superficial spreading or lentigo maligna melanoma types. The authors concluded regression of the primary melanoma is not associated with a higher proportion of positive sentinel nodes. These data do not support the practice of performing SLNB biopsy in thin melanomas with regression in the absence of additional adverse prognostic characteristics.

A SHIFT IN THOUGHT
Whereas regression was once considered a negative prognostic factor in primary melanoma, recent evidence suggesting its favorable role is pointing to a pronounced shift. This data confirms the recent AJCC staging system, which removed regression as a factor for upstaging melanoma, contradicting previous melanoma staging systems. Further scientific breakthroughs including in situ hybridization and specific genetic testing may further help delineate high-risk “thin” lesions in the future.

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