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Letters to the Editor

Predicting Nonsentinel Lymph Node Involvement in Stage I/II Melanoma

To the Editor:

We read with interest the article by Reeves et al. on the prediction of nonsentinel lymph node status in melanoma. The authors are to be congratulated for developing a scoring system, which predicts the nonsentinel node status in melanoma patients using the characteristics of the primary tumor and the amount of metastasis in the sentinel lymph node (SLN).[1]

As mentioned by the authors, at the present moment all melanoma patients with a positive SLN are offered a completion lymph node dissection (CLND), as advised by the American Joint Committee on Cancer. This is associated with a considerable morbidity. However, approximately 80% of these patients do not have positive non-SLN and will thus not benefit from a CLND. If the non-SLN status could be predicted, this group could be spared a CLND. In this study, the authors use the presence of ulceration of the primary melanoma and the maximum diameter of metastatic involvement in the SLN to predict the non-SLN status. Patients with a Size/Ulceration (SU) score of 0 will have no positive additional lymph nodes and could be spared a CLND.

After using this system on our own population, we doubt whether this scoring system is valid for a larger group of patients. Between 1993 and 2001, 454 consecutive patients underwent a selective SLN dissection at the VU University Medical Center. Seventy-one of them had a positive SLN node and underwent a CLND. Of these patients, 19 had one or more positive additional lymph nodes after CLND.[2] By using the scoring system as suggested by the authors, 44 patients had a SU score of 0, 21 patients had a SU score of 1, and 5 patients had a SU score of 2. Eight of the 44 patients with a SU score of 0, who would not have an additional lymph node dissection in the Reeves system, had positive additional lymph nodes after the dissection. During follow-up, one of these eight patients developed metastasis in the locoregional skin after 8 months and three of them developed systemic metastases after 6–17 months. These four patients have died of disease after 15–26 months follow-up.

So, the scoring system as suggested by the authors would withhold a group of patients at high risk for a CLND. Even when the CLND does not improve survival, this group of patients could have been more accurately staged after CLND.

We agree with the authors that a model to predict the absence of non-SLN involvement could spare many patients an unnecessary surgical procedure, but in our opinion the parameters as used by the authors are not accurate enough to predict non-SLN status. Instead of the scoring system suggested by the authors, our group has recently developed a staging system, which includes Breslow thickness of the primary tumor in combination with the surface area of metastases in the SLN to predict non-SLN involvement.[2] We have used the surface area of metastasis because in our experience most tumor deposits do not appear to be round. In this study, even patients with a small metastasis in the SLN and without ulceration of the primary tumor but with a thick primary melanoma showed positive additional lymph nodes. Using these parameters we were able to define a group of patients who will not have positive additional lymph nodes and could be spared a CLND. Interestingly, this group of patients had a significantly better disease-free and overall survival (87% and 94%, respectively). The presence of ulceration was not an independent factor after univariate and multivariate analysis in predicting non-SLN involvement.

Further studying other combinations of primary melanoma characteristics in combination with SLN metastases characteristics, such as a combination of Breslow thickness and tumor load in the SLN, would be useful to develop a staging system valid for large groups of cutaneous melanoma patients.

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In Reply:

We very much appreciate the thoughtful comments of Dr. van Leeuwen and colleagues regarding our article entitled