Prognostic significance of isolated immunohistochemical positive cells and metastatic tumor burden in sentinel lymph nodes from melanoma patients

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Histological and immunohistochemical (IHC) studies have been used to evaluate metastatic melanoma in sentinel lymph nodes (SLN). Occasionally, isolated IHC positive (IHC+) cells have been identified in SLN without atypical cells seen on H&E stained sections. We previously reported isolated IHC+ cells in lymph nodes from patients without melanoma. The aim of this study is to evaluate the prognostic significance of these IHC+ cells in SLN from melanoma patients, compared to patients with negative SLN and patients with SLN positive for metastatic melanoma. 826 melanoma patients who received a sentinel lymph node biopsy between 2000 and 2012 were identified from a tertiary medical center. Among them, 125 had metastatic disease in SLN, 639 had negative SLN and 60 had rare IHC+ cells in SLN without atypical cells seen on H&E sections. Within the SLN+ group, 51 had metastatic deposits <0.2 mm, 44 had deposits >2 mm and 30 had deposits between 0.2 and 2 mm. A control group was created by selecting 125 patients from the 639 negative SLN group to match the positive SLN group, based on age and sex. With a mean follow-up time of 58.8 months, the disease specific survival of patients with rare IHC+ cells in SLN was similar to patients with negative SLN and patients with tumor deposits less than 0.2 mm (P=0.19), but was significantly different from those with metastatic deposits between 0.2 mm and 2 mm and those with deposits >2 mm (P<0.0001). Further studies with longer follow up are needed.

Biography
Shaofeng Yan is the Director of the Dermatopathology Section and Dermatopathology Fellowship Program at Dartmouth Hitchcock Medical Center. She has received MD from Peking Union Medical College and PhD from University of Washington. She has received Anatomic and Clinical Pathology Residency Training at Dartmouth Hitchcock Medical Center and Dermatopathology Fellowship Training at Harvard Dermatopathology Fellowship Program. She became a Faculty Member of Dartmouth Hitchcock Medical Center in 2006. Since then she has published in the field of Dermatopathology. She has been serving as Editorial Board Member and Reviewer for different journals.

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