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# Detection of tyrosinase mRNA in the sentinel lymph nodes of melanoma patients is not a predictor of short-term disease recurrence

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Sentinel lymph node evaluation has enabled identification of patients with cutaneous melanoma who might

benefit from elective regional lymph node dissection. Sentinel nodes are currently assessed by histologic and

reverse transcription polymerase chain reaction (RT–PCR) evaluation for melanocyte-specific markers. The

clinical significance of positive findings by RT–PCR in the absence of histologic evidence of metastasis (HISNEG/

PCRPOS) remains unclear. Examination of 264 lymph nodes from 139 patients revealed histopathologic positivity

in 34 patients (24.5%), in which 26 also demonstrated simultaneous RT–PCR positivity (HISPOS/PCRPOS). Of 35

HISNEG/PCRPOS patients (25.2%), five also had nodal capsular nevi. In total, capsular nevi were detected in 13

patients (9.4%). A total of 70 patients (50.4%) had negative sentinel nodes by both histopathology and RT–PCR

(HISNEG/PCRNEG). Over a median follow-up of 25 months, local and/or systemic recurrence developed in 31

patients (22.3%). Recurrence rates were similar among patients with histopathologic evidence of sentinel lymph

node metastasis, irrespective of RT–PCR status (HISPOS/PCRPOS 62%; HISPOS/PCRNEG 75%). In contrast, only 10%

of HISNEG/PCRNEG patients developed recurrence, significantly less than those in either HISPOS group

(Po0.0001). Recurrence in the HISNEG/PCRPOS/CNNEG group (7.7%) was comparable to that in HISNEG/PCRNEG

patients and significantly lower than that in either HISPOS group (Po0.0001). The only independent prognostic

factors identified by multivariate analysis were the Breslow thickness of the primary tumour and

histopathologic positivity of sentinel nodes. **Our findings support previous observations that histopathologic**

**evidence of metastatic melanoma in sentinel lymph nodes is an independent predictor of disease recurrence. In**

**contrast, detection of tyrosinase mRNA by RT–PCR alone does not appear to increase the likelihood of shortterm**

**disease recurrence.**

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