

# Clinical relevance of sentinel lymph node status examined with conventional histology and molecular biology

Rocco Micciolo<sup>1</sup>, Sebastiana Boi<sup>2</sup>, Loredana Paoli<sup>2</sup>, Paolo Cristofolini<sup>3</sup>, Salvatore Girlando<sup>2</sup>, Paolo Dalla Palma<sup>2</sup>, and Mario Cristofolini<sup>4</sup>

<sup>1</sup>Department of Sociology and Social Research, Trento University, Trento; <sup>2</sup>Pathology Department, and <sup>3</sup>Plastic and Reconstructive Surgery, Santa Chiara Hospital, Trento; <sup>4</sup>Italian League Against Cancer, Trento, Italy

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## ABSTRACT

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**Aims and background.** The presence of nodal metastases in patients with primary cutaneous melanoma adversely affects the biological behavior and is related to a poor prognosis. The role of sentinel lymph node biopsy is still debated. The aim of this study was to evaluate the prognostic role of sentinel lymph node biopsy with respect to disease-free period and overall survival.

**Patients and methods.** Patients with invasive cutaneous melanoma who underwent sentinel lymph node biopsy in the Santa Chiara Hospital of Trento between October 1997 and December 2002 were evaluated. The lymph nodes were examined with conventional histology, S100 and tyrosinase in immunohistochemistry, and tyrosinase in molecular biology.

**Results.** There were 144 patients with 198 sentinel lymph nodes. A significant association was found in conventional histology with Clark level and Breslow thickness. The prognostic role of sentinel lymph node status was independent of the other considered variables. However, no significant association was found with the molecular biology test. A significant excess of positive results at molecular biology was found.

**Conclusions.** Sentinel lymph node biopsy is an important independent prognostic factor for invasive cutaneous melanoma, but only when evaluated with conventional histology. As a result of this study, we stopped performing the tyrosinase test in molecular biology.

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**Key words:** disease-free period, melanoma, overall survival, sentinel lymph node biopsy.

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*Correspondence to:* Rocco Micciolo, Via Verdi, 26, 38100 Trento, Italy. Tel +39-0461-882913; fax +39-0461-881348; e-mail rocco.micciolo@unitn.it

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