

## Sentinel node biopsy in cutaneous melanoma. Our personal experience in ten years of activity (1999-2008)

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**SUMMARY: Sentinel node biopsy in cutaneous melanoma. Our personal experience in ten years of activity (1999-2008).**

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*Cutaneous melanoma represents a malignant neoplasia with incidence that still doubles every ten years for unknown causes. The primary treatment was and remains up today fundamentally surgical in the I and II stadium (as AJCC classification). It consists according to the thickness in the radicalization to two centimetres around the lesion and in the search of the lymph node sentinel (LS). The concept of LS has been developed from Morton et al. and was established in 1990 after having shown that the combination of the preoperative lymphoscintigraphic study with the use of a vital dye allows with high reliability and precision the individualization and therefore the removal of the LS, defined such the lymph node that drains a defined cutaneous area and therefore is the first structure met by the neoplastic cells. Since it seems that, in the majority of the cases, at least as it regards the initial stadiums of the illness, initially the neoplasia spreads for by lymphatic it is the LS the first one to be involved in the case of lymphatic metastases, therefore its negativity deposes for the negativity of the whole lymphatic station. Therefore the biopsy of the LS solves the problem of the preventive lymphadenectomy rather than waiting for some evidence of lymphnode metastasis.*

KEY WORDS: cutaneous melanoma, sentinel lymph node.

### Aim

To assess the importance of sentinel lymph node in patients with cutaneous melanoma.

### Methods and results

In our experience, patients submitted to sentinel lymph node biopsy were 173/539 (96 female, 77 male, range 20-88 age).

Localisation was: head and neck 90, trunk 143, arms 92, legs 55, acral 28. Clark stade was: 98-I, 109-II, 89-III, 133-IV.

The most frequent pathology of melanoma was Superficial Spreading Melanoma (SSM) (58%) followed by nodular type (38%).

In our experience 68,3% of patients had Breslow lower than 1 mm, 26,5% had Breslow between 2-4 mm, 4 % over 4 mm.

### Results

Lymphoscintigraphy identified sentinel node in 167/173 pts (detection rate 96.5%) and showed 286 SN (in 6/167 SN appeared only after re-injection of Tc99m Nanocoll); in 6/173 cases SN was not identified (in 4/6 pts lymphatic drainage was difficult due to subcutaneous oedema in the side of primary lesion). The number of nodes identified by lymphoscintigraphy was: 1 SN in 77/167 pts (46.1%); 2 SN in 65/167 pts (38.9%); 3 SN in 20/167 pts (12.0%); 4 SN in 5/167 pts (3.0%); double drainage in different lymphatic station was observed in 26/173 pts (melanomas of back). Overall, the double technique blue-dry and  $\gamma$ -probe was able to identify: 297 lymphatic nodes in 167/173 pts ( $\gamma$ -probe was unable to identify SN in 6/173 pts). SN detection-rate: blue-dry = 69% (205/297 nodes);  $\gamma$ -probe = 97% (288/297). The nodes were examined, after paraffin inclusion, by monoclonal antibodies technique (S-100 and HMB 45); in 16/167 pts (9.6%) metastasis were found; 11/16 cases of SN metastasis were associated with stadium pT2/pT3/pT4 of skin melanoma; only 5/16 cases with pT1; after radical dissection of regional nodes, in 5/16 pts additional nodes were positive for metastasis.

### Conclusion

Our study confirms that lymphatic mapping and sentinel lymph node biopsy allow accurate staging and yield relevant prognostic informations in patients with early stage melanoma.