

## RULL - Radio-guided Ultrasound Lymph node Localisation: a technique for localizing and excising non palpable lymph nodes ultrasonographically suspicious for melanoma metastases

A. TESTORI<sup>1</sup>, M. RASTRELLI<sup>1</sup>, E. DE FIORI<sup>2</sup>, J. SOTELDO<sup>1</sup>, G. TRIFIRÒ<sup>3</sup>, P. DELLA VIGNA<sup>2</sup>, G. MAZZAROL<sup>4</sup>, L. TRAVAINI<sup>3</sup>, F. VERRECCHIA<sup>1</sup>, E.L. RATTO<sup>1</sup>, M. BELLOMI<sup>2,5</sup>

<sup>1</sup> Division of Melanoma and Sarcoma, European Institute of Oncology, Milan, Italy

<sup>2</sup> Department of Radiology, European Institute of Oncology, Milan, Italy

<sup>3</sup> Department of Nuclear Medicine, European Institute of Oncology, Milan, Italy

<sup>4</sup> Division of Pathology and Laboratory Medicine, European Institute of Oncology, Milan, Italy

<sup>5</sup> School of Medicine, University of Milan, Milan, Italy

### Aim

Identification of lymph nodes suspicious for metastases is crucial in melanoma patients during the follow up. We propose a procedure called Radio-guided Ultrasound Lymph node Localization (RULL) for melanoma patients with ultrasonographically (US) suspicious, not palpable lymph nodes. The aim of this study was to evaluate the feasibility of this technique, and to assess the efficacy of this new method.

### Methods

RULL was applied in 12 consecutive melanoma patients with not palpable lymph nodes found suspicious for metastases during US follow up. Macro aggregates of human serum albumin labelled with diluted <sup>99m</sup>Tc were injected into the suspected lymph node under US guidance and followed by a scintigraphy. The surgical treatment was carried out with the

support of hand-held gamma probe used for sentinel node biopsy.

### Results

The tracer was correctly positioned in all 12 patients. Pathological examination revealed 7 patients with metastatic lymph nodes, 4 with not metastatic lymph nodes, 1 patient with Hodgkin disease. No surgical complications were described.

### Conclusion

Radio-guided Ultrasound Lymph node Localization may integrate the standard Ultrasound-Guided Fine-Needle Aspiration to improve the diagnostic accuracy on US suspicious nodes and might replace the more logistically complicated wire identification or less accurate cutaneous marker identification of these nodes. Sensibility and specificity of this approach should be defined through a large multicentric study.

KEY WORDS: RULL, ROLL, lymph node ultrasound evaluation, melanoma, follow up.

Corrispondenza Autore:  
Dott. Marco Rastrelli  
Divisione Melanomi e Sarcomi, Istituto Europeo di Oncologia  
Via Ripamonti, 435 - Milano  
E-Mail: marco.rastrelli@ieo.it

© Copyright 2009, CIC Edizioni Internazionali, Roma