

Cod: PO129

THE ROLE OF RADIO-GUIDED SENTINEL NODE BIOPSY AND 18FDG-PET IN THE MANAGEMENT OF CUTANEOUS HEAD-NECK MELANOMA PATIENTS

M.A. Renna¹, A. Niccoli Asabella¹, V. Loseto¹, F. Luele¹, F. Simone¹, G. Rubini¹

¹*Nuclear Medicine Unit, D.I.M., University of Bari "Aldo Moro", Bari, Italy*

BACKGROUND-AIM

Analyze lymphatic drainage and recurrence patterns in patients (pts) undergoing sentinel lymph node biopsy (SLNB) for cutaneous head and neck melanoma and evaluate the utility of FDG-PET/CT in the follow up after SLNB.

METHODS

From January 2009 to April 2014, 57 pts (mean age 49 y, 32 male, 25 female) with head and neck cutaneous melanoma were enrolled in the study. All pts had no other neoplastic diseases in their clinical history and presented lesions between 0,9 and 8 mm (Breslow thickness). They underwent preoperative lymphoscintigraphy with 99mTc-labeled human albumin colloid and the same day they were submitted to radio-guided SLNB. Sentinel lymph nodes (SLN) were examined by conventional H&E and immunochemistry. Primary endpoints included failure of lymphoscintigraphy (presurgical identification rate (IR)) and failure identification of SLN at surgery (surgical IR). Secondary endpoints included SLNB result, time and site to recurrence. A false-negative SLNB was defined as a negative SLNB in a patient who developed regional recurrence during follow-up (false negative/false negative+true positive \times 100). All pts underwent to 18FDG-PET/CT within 6-8 months after surgery. We collected data pts for a follow-up period of 8 to 50 months.

RESULTS

In 4/57 pts no SLNs were found at lymphoscintigraphy time (presurgical IR=93%), in 2/53 pts no SLNs were found at surgery time (surgical IR=96%). A total of 89 SLNs were found and removed in 51 pts (mean n°SLNs/pt=1,74). 68/87 SLNs (78%) resulting negative at histological examinations. In 11/51 pts (21,5%) were found 19/87 SLNs positive (22%), 10/19 positive for micrometastases (52,6%), 9/19 positive for macrometastases (47,4%) and they underwent, within 2 months, to regional lymph nodal dissection. 18FDG-PET/CT was performed in all pts; in the 40 pts with negative SLNs (78,5%) 32 had no pathological uptakes in lymph node or other recurrences; 7/40 (17,5%) had lymph node uptake (range SUV 3,2-11,5) in the same basin where SLNs were removed. In these 7 patients CT scan or US showed suspicious LN swelling, so they underwent prophylactic lymphadenectomy or in-transit recurrence biopsy. At histological examinations of residual LNs removed, 5/7 pts had macrometastases. In the other 2/7 pts we found chronic inflammatory lymphadenopathy. 2/7 pts have a nodule near the scar region suspicious for in-transit relapse and confirmed by histological examination. False negative rate was 31,5%.

CONCLUSION

In the staging of melanoma, lymphoscintigraphy remains an essential tool to localize SLNs and detect unusual drainage, but for head-neck melanoma, because of high presurgical and surgical identification rate, but we found also a high false negative rate. This could be explained considering the complexity of lymphatic drainage and the high variability of the anatomy of neck lymphatic vessels. For early identification of melanoma relapse and especially lymph node metastases, which have escaped to the SLNB and according to the results of our experience, we propose to perform a 18FDG-PET/CT in all patients with head-neck melanoma (with +/- SLNs) within 6-8 months after the first surgery.