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Value of axillary lymphoscintigraphy in patients with operated breast carcinoma

Gülin Vural,* Elçin Özalp,* Tamer Çalıkoğlu,** Ali Rıza Üçer,** Sema Durmuş,** Bülent Turgut* and Nur Erçakmak*

*Department of Nuclear Medicine, **Department of Radiation Oncology, Ankara Oncology Hospital, Ankara, Turkey

Purpose: To evaluate axillary dissection with axillary lymphoscintigraphy (ALS) in postoperative patients with breast carcinoma and its role in adjuvant radiotherapy (RT). Additionally, to define axillary dissection as complete and incomplete with ALS and to correlate it with the number of removed lymph nodes. Material and Methods: In the last two years, 121 women were studied four weeks after operation. Bilateral second interdigital subcutaneous injections were performed for ALS. Complete and incomplete axillary dissection were interpreted according to the number of surgically removed lymph nodes. ALS was interpreted as complete if no accumulation was shown. *Results:* There was a good correlation between the number of surgically removed lymph nodes and complete and incomplete interpretation on ALS (p < 0.004). The number of removed lymph nodes was equal to or greater than 15 in 72% patients with complete dissection according to ALS. Of 48 patients with surgically incomplete axillary dissection, 18 (38%) showed no accumulation in the axillary region, while 25 of 68 (37%) patients with surgically complete dissection showed accumulation in the axillary region and were interpreted as incomplete according to ALS. Indication of RT was changed after ALS in patients with 1 to 3 involved lymph nodes. While RT was not considered in 12 of these patients before ALS, they were included in RT planning. On the other hand, 17 patients, considered for RT previously, were excluded from RT planning after ALS. Conclusion: Evaluation of axillary dissection with ALS especially in suspicious patients with 1 to 3 lymph node metastases might prevent unnecessary morbidity and can be useful in selecting patients who truly need axillary irradiation.

Key words: breast cancer, axillary lymphoscintigraphy, radiation therapy