Annals of Nuclear Medicine Vol. 17, No. 8, 657-662, 2003

Usefulness of ⁶⁷Ga scintigraphy in extranodal malignant lymphoma patients

Yoshihiro Nishiyama,* Yuka Yamamoto,* Yoshihiro Toyama,* Katashi Satoh,* Masami Nagai** and Motoomi Онкаwa*

Departments of *Radiology and **First Internal Medicine, Faculty of Medicine, Kagawa Medical University

Objective: ⁶⁷Ga scintigraphy has a well-documented role in nodal lymphoma for both disease staging and assessment of treatment response. The objective of the present study was to examine the role of ⁶⁷Ga scintigraphy in diagnosis and assessment of treatment response, in patients with extranodal malignant lymphoma. Methods: Seventy-one patients with extranodal malignant lymphoma were studied. Whole body scans in all and SPECT scans in some selected patients were performed 72 hours after injection of ⁶⁷Ga-citrate. The influence of tumor site, histological classification and tumor size on ⁶⁷Ga scintigraphy sensitivity was analyzed. Twenty-one of the seventy-one patients also had a second ⁶⁷Ga scintigraphy to assess response to treatment. *Results:* The overall ⁶⁷Ga scintigraphy sensitivity was 83.1% (59/71). The sensitivity was low in patients whose extranodal lymphoma occurred in skin (0/3) and urinary bladder (0/1), as compared to other tumor sites. According to the histological classification of the lesion, the sensitivity was lower in low-grade than in intermediate and high-grade lymphoma. According to the tumor size, the sensitivity was low in lesions less than 2 cm in diameter than those more than 2 cm in diameter. The results changed from positive to negative accumulation in 20 (95.2%) of the 21 patients who had ⁶⁷Ga scintigraphy to assess the response to treatment. These 20 patients showed a good clinical course. Conclusions: Although ⁶⁷Ga scintigraphy did not show positive accumulation in patients with skin and urinary bladder lymphoma, it was helpful to confirm the diagnosis and to evaluate the therapeutic effect in most patients with extranodal malignant lymphoma.

Key words: extranodal malignant lymphoma, ⁶⁷Ga scintigraphy, therapeutic effect