Letter to the Editor

In Reference to Alexiou et al. (Neuro-Oncology 2008;10:104–105)

Dear Editor,

We read with attention the article “Evaluation of glioma proliferation by 99mTc-Tetrofosmin” by Alexiou et al. (Neuro-Oncology 2008;10:104–105). We have significant experience in the use of single-photon emission computed tomography (SPECT) images in the management of malignant glioma patients.1–3 In our opinion, the published study was too small and underestimated the implications of SPECT images in the management of glioma patients. We would like to clarify this subject by sharing some of our own experiences.

Tetrofosmin scintigraphy has characteristics similar to those of technetium-99m-labeled methoxyisobutylisonitrile (99mTc-MIBI) scintigraphy. Moreover, its sensitivity and specificity in distinguishing malignant lesions from benign tumors and in discriminating recurrent glioma from radionecrosis are the same as those of 99mTc-MIBI scintigraphy.2 Moreover, tetrofosmin could be used as a noninvasive marker of glioma proliferative activity, like the sestamibi tracer, but the clinical utility of tetrofosmin needs to be evaluated.4

We point out the following:

• 99mTc-MIBI SPECT has proved useful in detecting intracranial tumors before therapy, especially neurosurgery, with higher sensitivity and specificity for gliomas than for other cancer histologies (i.e., lymphomas). Moreover, MIBI uptake has been correlated with the grade of malignancy of gliomas.4
• 99mTc-MIBI brain SPECT may be helpful for evaluating the degree of tumor resection of malignant gliomas.4
• 99mTc-MIBI brain SPECT may help in establishing the prognosis of glioma patients at the end of radiation therapy, allowing for adaptations in patient care. These new data should be considered in the design of future clinical studies of malignant glioma therapies as a way to quickly assess the therapies’ efficiency.1,3,4

Thank you for sharing these observations with your readers.

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References