

## Analysis of factors affecting uptake of Tc-99m Sn-N-pyridoxyl-5-methyltryptophan by hepatocellular carcinoma

Yoshihisa HASEGAWA,<sup>1</sup> Shunichi NAKANO,<sup>1</sup> Tomotaka SOBUE,<sup>2</sup> Makoto FUJITA,<sup>3</sup> Shingo ISHIGURO,<sup>4</sup>  
Yo SASAKI,<sup>5</sup> Shingi IMAOKA,<sup>5</sup> Sachiko TANAKA,<sup>6</sup> Hiroshi KASUGAI,<sup>6</sup> Atsuo INOUE<sup>6</sup>  
and Jyunnosuke KOJIMA<sup>6</sup>

*Departments of <sup>1</sup>Nuclear Medicine, <sup>2</sup>Field Research, <sup>3</sup>Radiology, <sup>4</sup>Pathology,  
<sup>5</sup>Surgery, and <sup>6</sup>Internal Medicine, The Center for Adult Diseases, Osaka*

We performed Tc-99m PMT imaging in 176 patients with HCC and evaluated factors affecting <sup>99m</sup>Tc-PMT uptake by HCC with a logistic model. The probability of HCC showing increase in uptake of the radioisotope was 104.6 times higher in patients with the Ed I type than in those with the Ed III type and 12.1 times higher in patients with a tumor diameter of 5.0-7.9 cm than in those with a tumor diameter of 2.0-5.0 cm. Among the other variables, the serum AFP level and sex were suggested to have effects similar to those of the tumor size on Tc-99m PMT uptake by HCC. The grade of morphological differentiation of the tumor was therefore most markedly related to Tc-99m PMT uptake.

**Key words:** Tc-99m PMT, hepatocellular carcinoma, grade of tumor differentiation