

## Unexpected accumulation of thallium-201 in bilateral thalamic venous infarction induced by arteriovenous fistula in the posterior fossa: Report of a case

Fumihiko TAMAMOTO,\* Atsushi NAKANISHI,\* Tomoko TAKANASHI,\* Hideyuki ISHIZAKI,\*  
Hidekazu NAGASAWA,\* Tadayuki MAEHARA,\*\* Shingo OHNO\*\*\* and Yutaka OTSUBO\*\*\*

*\*Department of Radiology, Tokyo Metropolitan Ohtsuka Hospital*

*\*\*Department of Radiology, Juntendo University School of Medicine*

*\*\*\*Department of Neurosurgery, Tokyo Metropolitan Ohtsuka Hospital*

We encountered unexpected accumulation of thallium-201 in a patient with thalamic dementia resulting from bithalamic venous infarction induced by arteriovenous fistula in the posterior fossa. The site and degree of abnormal accumulation varied between early and delayed thallium-201 SPECT images. This unexpected and complicated accumulation of thallium-201 appeared to depend on not only breakdown of the blood-brain barrier but also on the hemodynamics of this type of venous infarction.

**Key words:** thallium-201, arteriovenous fistula, venous infarction, single photon emission computed tomography (SPECT)