

**Study on the primary visual cortex of visually impaired subjects
by means of ^{123}I -IMP SPECT and MRI**

Nobuyoshi ISHIKAWA,* Kazushi NISHIO,** Motohiro SATOU,* Tohoru TAKEDA*
and Yuji ITAI*

**Institute of Clinical Medicine, Tsukuba University*

***Tsukuba College of Technology*

We conducted a study of rCBF in the primary visual cortex of visually impaired subjects who have not been subjected to external stimulation for a long period, by means of ^{123}I -IMP SPECT and MRI. The four subjects had lost their sight due to brain tumors (n = 2), glaucoma (n = 1) and trauma (n = 1). ^{123}I -IMP SPECT showed no differences between the visually impaired group and a visually sound control group on visual analysis as well as semiquantitative analysis. MRI of the visually impaired subjects showed no organic changes, such as atrophy, in the occipital cortex.

In conclusion, visually impaired subjects have no decrease in rCBF and no anatomical changes in the primary visual cortex.

Key words: visual cortex, rCBF, SPECT, MRI, ^{123}I -IMP