

fMRI STUDY ON HUMAN BRAIN'S ACTIVATION BY THE BRAIN STIMULATOR

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ABSTRACT

Brain Stimulator processes both visual and audible stimulus and send them human sensory organ. The stimulus was accepted by our sensory organ effect upon human mental function. In this study, we examine the actual effect of commercial brain stimulator using fMRI system.

Keywords : brain stimulator, human mental function, fMRI

1. INTRODUCTION

Human brain function is associated with the information that take through sensory organ. Regular visual and audible stimulus exerts some effect upon human mental function. Some brain stimulators realized this principles are commercially available now. In this experiment, with the brain stimulator (MC2 StudyTM, Daeyang E&C, Co. Ltd), we evaluated the effect of the brain stimulator. Volunteers (2 males, 3 females) were stimulated during 10 minutes using p5 energizer mode(following manually operating mode of brain stimulator), and we obtained the brain functional signal with 3T MEDINUS MAGNUM MR-scanner. The signals and experimental data were processed by SPM99. This experiment were performed by 3 different stimulus, the first was visual, the second was audible, the third was both visual and audible.

2. MATERIAL AND METHODS

2.1 Volunteers: 2 males, 3 females, mean age is 25.5.

2.2 Brain Signal Scanner: 3T MEDINUS MAGNUM MR-scanner.

2.3 Statistical Analysis Tool: SPM99

3. RESULT & DISCUSSION

The present result showed that volunteers' brains had a tendency: Left cerebrum and frontal lobe regions were activated after brain stimulation, and women's were more sensitive than men's. This showed that brain stimulator would have some effect to human mental function.

4. REFERENCES

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