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学位の種類	博士（理学療法学）
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課程・論文の別	学位規則第 4 条第 1 項該当
学位論文題名	Immediate effects of the head-mounted display adaptation in cases of unilateral spatial neglect: a study on straight-ahead pointing (半側空間無視症例の正中認知に与えるヘッドマウントディスプレイアダプテーションの即時効果)
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【論文の内容の要旨】

[Purpose]

This study aimed to clarify the effect of an adaptation with a deviation of the visual field in three axes on spatial cognition in patients with unilateral spatial neglect who have distorted spatial perception in three dimensions.

[Participant(s) and Methods]

This study was conducted at 2 regional rehabilitation hospitals and one acute hospital, and adopted a one-session crossover design of experimental condition and control condition. Fifteen patients with cerebrovascular disease who had symptoms of unilateral spatial neglect were included as participants. Forty-eight times of pointing movements with a camera attached to a head-mounted display being changed in three axes were compared to the control condition in which the camera was deflected only in the horizontal plane, the same condition as the prism adaptation. The main outcome measures were subjective straight-ahead pointing, line bisection, line cancelation, and star cancelation.

[Results]

The head-mounted display adaptive therapy was performed under conditions that

varied in all three axes, and the results indicated that it was possible to deflect the subjective straight ahead pointing position to the lower-left direction.

[Conclusion]

In conclusion, in contrast to the prism adaptation, which deflects the visual field in one axis in the horizontal plane, the tri-axial adaptation did not only correct the median cognition in the left-right direction, but also the cognition of the body center, including the vertical direction.