

平成21年度 博士後期課程学位論文要旨

学位論文題名 (注: 学位論文題名が欧文の場合は和訳をつけること)

GENERALIZATION OF PRISM ADAPTATION FOR WHEEL CHAIR DRIVING TASK IN PATIENTS WITH UNILATERAL SPATIAL NEGLECT

(半側空間無視患者に対する車椅子操作課題へのプリズム順応の汎化)

学位の種類: 博士 (理学療法学)

人間健康科学研究科 博士後期課程 人間健康科学専攻 理学療法科学系

学修番号 07995610

氏名: 渡辺 学

(指導教員名: 網本 和 教授)

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Objectives: To verify the efficacy of prism adaptation as a practical means of rehabilitation for subjects with unilateral spatial neglect by conducting goal-directed tasks in the presence of similar visual flankers in the right hemispace using an activity of daily living (ADL), namely, wheelchair operation. **Design:** Prospective cohort study **Setting:** Rehabilitation center located in Japan **Participants:** Patients with unilateral spatial neglect (n=10) **Intervention:** Prism adaptation **Main Outcome Measures:** A midpoint-directed task in which the subject faces the center of two symbols placed in front and moves the wheelchair towards it, and a goal-directed task in which the subject must differentiate a single target from multiple symbols and move the wheelchair towards it. **Results:** In the midpoint-directed task, there was a significant shift in the reach position bias from +27.7cm prior to prism adaptation to +3.1cm after prism adaptation ($P<0.01$). In the goal-directed task, the time taken to reach the outer left target decreased from 21.2 seconds prior to prism adaptation to 11.8 seconds after prism adaptation, and the difference between placement of the targets was eliminated. **Conclusions:** Prism adaptation exhibited the potential to generalize the effects on activities of daily living such as driving a wheelchair and to ameliorate unilateral spatial neglect even in the presence of right-hemispace flankers. Prism adaptation is an effective therapeutic modality in rehabilitation because it prevents the appearance of neglect symptoms despite situational or contextual changes.