



HOKKAIDO UNIVERSITY

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学位論文内容の要約

学位論文題目

The factors influencing the recovery of oral function and oral health related quality of life in patients with removable partial dentures.

(部分床義歯装着による機能回復ならびに口腔関連 QOL 向上に影響を与える因子について)

博士の専攻分野名称 博士（歯学） 氏名 岩田 航

Abstract:

Purpose:

This study was to evaluate the RPD design in the patients with partial edentulism and to estimate the factors of RPD design affecting the recovery of oral function and OHRQoL prospectively.

Methods:

We selected partially edentulous patients who had been treated with RPDs at the Clinic of Removable Prosthodontics, Hokkaido University Hospital, from July 2016 to December 2018. We obtained patients information, masticatory performance and OHRQoL before insertion of new RPDs from all participants (baseline; BL). Also, masticatory performance and OHRQoL were measured three and six months after insertion of RPDs (3M and 6M, respectively). Masticatory performance was measured as glucose extraction using a glucose testing device (Gluco Sensor GS-II, GC, Tokyo). OHRQoL was measured using Japanese version of the Oral Health Impact Profile (OHIP-J). Masticatory performance and OHIP-J score at BL, 3M and 6M were compared using Wilcoxon sign rank test. Logistic regression analysis was performed to estimate the factors on treatment efficacy as masticatory performance and OHIP-J score.

Results:

The subjects of the final analysis were 86 patients (34 men and 52 women), with a mean age of 69.4 ± 9.3 years. The value of masticatory performance significantly increased from BL to 3M ($p < 0.0001$), and also increased from BL to 6M ($p = 0.0109$), while it significantly decreased from 3M to 6M ($p < 0.0001$). OHIP-J scores significantly decreased from BL to 3M ($p < 0.0001$) and decreased significantly from BL to 6M ($p < 0.0001$). There was no significant difference in the change from 3M to 6M ($p = 0.1574$). Logistic regression analysis showed that male ($p = 0.019$), lower masticatory performance before treatment ($p = 0.0015$), four or more abutment teeth ($p = 0.0195$), with coping ($p = 0.0006$) and four or more artificial teeth ($p = 0.0386$) were associated with high masticatory performance with significance. Logistic regression analysis suggested that four or more abutment teeth ($p = 0.0372$) and three or less retainers ($p = 0.0249$) were significantly associated with improvement of OHIP-J score, indicating higher OHRQoL.

Conclusion:

In this study, it is shown that the patients with partial edentulism improve masticatory performance and oral health related quality of life by placement of suitable RPD. Additionally, the recovery of oral function such as masticatory performance was influenced with RPD design such as the number of abutment teeth, retainers and artificial teeth and existence of coping. Also, OHRQoL was influenced with RPD design such as the number of abutment

teeth, retainers.