

- 原著 -

PAI 2 を用いた上突咬合症例における矯正治療  
前後の軟組織側貌の評価

吉田孝洋，森田修一，中川麻里，八巻正樹，花田晃治

新潟大学大学院医歯学総合研究科咬合制御学分野  
(主任：花田晃治教授)

Evaluation of soft tissue profile with treatment in protruding  
upper bite using the PAI 2

Takahiro Yoshida, Shuichi Morita, Mari Nakagawa, Masaki Yamaki and Kooji Hanada

*Division of Orthodontics, Niigata University Graduate School of Medical and Dental Sciences  
(Chief: Prof. Kooji Hanada)*

平成15年5月1日受付 5月1日受理

Key words : PAI 2 ( Profile Aesthetic Index 2 ), facial profile, 上突咬合, 矯正治療

Abstract: Synthetic and objective evaluation of facial profile changes before and after orthodontic treatment had been evaluated the results of treatment. Abe et al. in 1990 developed the Profile Aesthetic Index (PAI) and evaluated facial profile changes in orthognathic patients used by the PAI. The PAI was improved and developed into the PAI 2 in 1992. The purpose of this study was to estimate usefulness of the PAI 2 in facial profile changes of orthodontic patients with protruding upper bite.

Lateral cephalograms of 5 men and 11 women, 11 to 29 years of age with protruding upper bite were obtained from the Loop Orthodontic Office and the Niigata University Dental Hospital. Six patients ( male : 5, female : 1 ) were treated with non-extraction, and ten patients ( female : 10 ) were treated with extraction. Anguler and liner measurements were analyzed and the values of the PAI 2 in before and after orthodontic treatment were calculated. The value of the PAI 2 in pretreatment was  $42.13 \pm 9.06$ , and in posttreatment was  $51.10 \pm 6.06$ . The higher was the value of the PAI 2, the better was the facial profile. From the results of this study, the value of the PAI 2 increased after orthodontic treatment, facial profile of patients used in this study was improved. The mean value of the PAI 2 was obtained from lateral silhouette photographs of the patients with various facial profiles in farmer study and revealed the index of the standard profile. In the before treatment, the value of the PAI 2 in this study was larger than the mean value of the PAI 2, and suggested that the patients in this study had the better profile. PAI 2 had many variables for evaluation of facial profile changes from the nasal tip to the chin and facial heights, therefore the PAI 2 seemed to be possible to evaluate slight changes in facial profile. Our results suggested that the PAI 2 was a useful index for the evaluation of facial profile changes with orthodontic treatment.

抄録：矯正治療における軟組織側貌の変化は，顔貌全体の審美性に大きな影響を与えるため，総合的かつ客観的な評価法について研究が行われてきた。1990年に阿部らが側貌審美指数（Profile Aesthetic Index：PAI）を考案して外科的矯正治療前後における側貌の変化を評価し，さらにこのPAIを改良したPAI 2も報告した。そこで今回，PAI 2が外科的矯正治療だけではなく，矯正治療単独症例においても軟組織側貌の評価法として有用であるかどうかを上突咬合症例を用いて検討した。