

優秀論文賞受賞講演

Facial Aesthetic Analysis of Prosthetic Recovery after Partial Maxillectomy Using a Non-Contact 3-Dimensional Digitiser

Tomoyuki Kanbe

Department of Oral and Maxillofacial Surgery, Gunma University Graduate School of Medicine

【Background & Aims】 The purpose of this study was to investigate changes in facial morphology after partial maxillectomy and recovery after dento-maxillary prosthesis placement.

【Methods】 For facial morphology measurements, the non-contact 3-dimensional (3D) digitiser and the analytical software were used for 21 patients with defects classified into Class I or II of the Aramany classification.

【Results】 It was quantitatively demonstrated that facial deformities resulting from partial maxillectomy were due to concavities from the subnasal point to the mentolabial groove in the vertical range, and from the region around the nasal alar to the anterior cheek in the lateral range. Facial features

anterolaterally expanded on the defected side in volume with the prosthesis. Facial disfigurement extended to the lower face, and improvement of these deformities was also observed with the prosthesis. Using the non-contact 3D digitiser, the direction and amount of movement of the facial components within the mid- and the lower face regions were 3-dimensionally determined, enabling rapid and accurate identification of facial deformities, and recovery of the facial morphology with prosthesis.

【Conclusion】 This is the first study to analyse of prosthesis-induced changes in facial morphology after partial maxillectomy with a non-contact 3D digitizer.