



American Academy of Maxillofacial Prosthetics
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Program Speaker – Fumi Yoshioka

Title

Analysis of Facial Movement and Skin Texture for Fabricating Facial Prosthesis Using 4D Facial Expression Models

Abstract

Facial prosthesis has been conventionally fabricated on the cast made from either conventional or digital impressions without facial expression. Successful facial prosthetic rehabilitation can be achieved when patients can appear in public without fear of attracting unwanted attention. However, patients often suffer from anxiety that their facial prostheses may fall off because of complex movement with facial expressions. The marginal sealing of a facial prosthesis should be successfully acquired. In order to fabricate well-fitted facial prostheses, we have applied “4D facial expression models” which include the movement involved with facial expression by using a process known as morphing and tried to fabricate facial prostheses based on the 4D facial expression models. In addition to movement of facial skin, skin texture such as skin viscoelastic property is an important to be considered for well-fitted facial prosthesis. In this presentation, the concept of 4D facial expression models and fabrication of facial prostheses using 4D facial expression models will be described, followed by report the relationship between facial movement and skin texture as well as between skin texture and retention of facial prosthesis using 4D facial expression model.

Biography

Fumi Yoshioka received her D.D.S. degree from Tohoku University, Sendai, Japan in 2000 and her Ph. D. from Tokyo Medical and Dental University, Tokyo, Japan in 2004. Her major there was a maxillofacial prothodontics. After couple of years work as a clinical staff of the Maxillofacial Prosthetics Clinic in Tokyo Medical and Dental University, she moved to Chicago, USA to join the maxillofacial prosthodontic fellowship program in University of Illinois at Chicago. After coming back to Japan, she started her career at School of Dentistry, Aichi Gakuin University in Nagoya, Japan April 2007. She is currently a board member of Japanese Academy of Maxillofacial Prosthetics.