International College of Prosthodontists
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Program Speaker – Junko Nakajima

Title

Prosthodontic Strategies and New Evaluation System for Dysphagia

Abstract

With the increase of the aging population and the progress in medical and health science, more patients experience many problems with eating and swallowing which cause them at the risk of malnutrition, sarcopenia, and frailty. Sometimes, reduced tongue force can be a major factor of dysphagia especially in patients with stroke, neuromuscular disease, and post head and neck cancer treatment. A multidisciplinary approach, including dentist is required to manage dysphagia, because not only the oral care but also the oral rehabilitation through prosthodontic intervention can aid these patients. In our country, dentists have more opportunities to work together as a member of Nutritional Support Team and Dysphagia Support Team, and the number of the patients who was delivered the palatal augmentation prosthesis for dysphagia is increasing. Recently, the effects of the palatal augmentation prosthesis are not limited in the changes in oral phase of swallowing but in pharyngeal phase as well. This presentation will give examples of the prosthodontic managements for dysphagia.

In addition, with the advancement of the new technology, the evaluation of dysphagia made progress and more detail aspects, which were not identified with conventional video-fluoroscopic examination of swallowing came to be clear. We evaluated swallowing function using 320-row area detector CT (320-ADCT), this system can scan in the range of 250 mm with one rotation of the X-ray tube over 0.275 s and reconstruct three-dimensional movement during swallowing, in patients who underwent hemiglossectomy. In this presentation, we will show four-dimensional moving images produced by continuous replay of 3D images of characteristic hyoid movements during swallowing, which would not be observed in other ways.

Biography

Dr. Junko Nakajima is Senior Assistant Professor of the department of Oral Medicine and Hospital Dentistry of Tokyo Dental College. She received her DDS degree in 1997 and Ph.D. degree in 2001 from Tokyo Medical and Dental University, Japan. She is a specialist in maxillofacial prosthodontics and oral and maxillofacial surgery and obtained the board certified Prosthodontist of Japan Prosthodontic Society, Maxillofacial Prosthodontist of Japan Academy of Maxillofacial Prosthodontics, and Specialist in Oral and Maxillofacial Surgery of Japan as well. She was a Visiting Researcher from 2015 to 2016 at Institute for Voice and Swallowing, Medical University of South Carolina, where she joined the clinical research for dysphagia. Her current research focus includes post-surgical rehabilitation for head and neck cancer patients.