

Title: Conceptual model for optimal implant positioning in edentulous mandible treated with overdenture – Preliminary report of case series

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Abstract (250-300 words)

Most developed nations including Japan are facing a super-aging society. This has become a large problem, especially in Asian nations, because of increasing numbers of patients with oral frailty. Notably, individuals with an edentulous mandible can easily become affected by a low nutrition level and reduced activities of daily life, because of poor retention or weak occlusal support with their prosthesis. In such cases, an implant over denture (IOD) is a useful treatment option, as noted in the McGill and York consensus statements. However, clear guidelines for better diagnosis are not available, especially regarding the best position for implant attachment. The aim of this presentation is to present a set of principles for diagnosis and treatment planning for later ideal implant positioning, and promotion of an optimal patient-centered outcome.

We have developed a novel method for determining the ideal implant position, in which the mandibular arch is divided into 3 zones (Zone 1, 2, 3) according to the relationship between the alveolar crest and artificial tooth position. Following implant placement, the patient is provided

with a mandibular IOD. At 2-year follow-up evaluations of prostheses placed in 15 patients, all chief complaints were resolved and there were no complications noted. Furthermore, a comparison of scores before and after treatment obtained with an OHIP-14 questionnaire showed that stress caused by poor oral function was totally solved in all of the patients. Although our findings are limited, they indicate that this novel diagnostic method for planning mandibular IOD treatment leads to a good outcome. Future well-designed clinical studies are necessary before definitive conclusions can be made. (263 words)

Biography (100-150 words)

Dr. Kouhei Shinmyouzu has received a PhD in Oral and Maxillofacial Surgery and Implant Oral Reconstruction from Kyushu Dental University, in Fukuoka, Japan, and then worked as an assistant professor of Oral and Maxillofacial Surgery at the same university. After leaving that position, Dr. Shinmyouzu started work as a special research worker at the Implant Department of Kyushu Dental University and became the director of Tanpopo Dental Clinic in Tokyo, Japan. From 2018, he was also appointed as a Key Opinion Leader at Zest Dental Solutions in California, USA. (89 words)

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