

Fixed Prosthodontics

1. Staffs and Students(April, 2010)

Professor	Hiroyuki MIURA	
Associate Professor	Keiichi YOSHIDA	
Junior Associate Professot	Daizo OKADA	
Assistant Professor	Wataru KOMADA, Kosuke NOZAKI, Kumiko KAWASHIMA, Yuji FUKUI	Chiharu SHIN, Asano KAWAZU Yuko KIZUKI,
Graduate Student	Koichiro YUSA, Haruomi ABE, Reiko OGURA, Ning Xu, Reina NEMOTO, Yoji UEDA, Tasuku INAGAKI,	Kenichi GOSHIMA, Jinbao MA, Naosuke KUMAGAE, Satoshi OMORI, Sachi MAKINO, Izumi KATAOKA, Rie FUJITA

2. Purpose of Education

The major subjects of the studies are occlusion of Cr-Br prostheses (fixed restoration such as crown and fixed partial denture), analysis of mandibular movement, influence of crown and periodontal tissue and its systemic affect, accuracy of manufacturing processes of crown (i.e. casting, soldering, luting and adjustment of occlusion), functional analysis of stomatognathic system and development of apatite ceramic implant. The research themes are investigated with measurement systems of mandibular movement, measuring instruments of tooth micro-displacement, electromyography, measurement apparatus of dimensional accuracy, EPMA (electron probe microanalyzer) for analyzing very small amount of dental alloy and histopathological methods. Clinical training and general lecture on prosthodontics are prepared for the graduate students in the first year. After the second year they will have special training for their research methods and experiments will be performed according to the research plan. In the last year the students will write the paper for thesis under the direction of the professor.

3. Research Subjects

- 1) Occlusion and Mastication. (mandibular position, mandibular movement, articulator, masticatory efficiency)
- 2) Influence of occlusal contact on stomatognathic system including periodontal tissues. (Tooth displacement, distortion of alveolar bone, occlusal contact, proximal contact etc.)
- 3) Clinical application of All-Ceramic CAD/CAM FPDs.
- 4) Influence of occlusal height for an important prosthesis on the periodontal tissues of the antagonist.
- 5) Application of laser welding in crown and bridge restorations.
- 6) Influence of dental materials for periodontal tissues and biological body.
- 7) Functional analysis of abnormal stomatognathic function.

4. Clinical Services

1) Clinic for prosthodontics (Prosthodontics practice clinic)

This clinic is organized by clinical teams, and 4 to 8 dentists compose 1 team working in cooperation between teams. Here offers a complete range of restorative, rehabilitative, and esthetic dentistry, treatment types include since simple one teeth to complete oral rehabilitation using the latest technologies.

2) Clinic for dental allergy (Dental allergy clinic)

This clinic provides allergy tests test for dental alloys and dental materials on potential patients before dental treatment, besides, patients with skin and/or oral diseases histories induced by previous dental restorations. The causal allergen/s is/are identified by patch tests or if some metal restoration is allergy set on, is analyze by Electron Probe Micro Analyzer (EPMA), removing out only restoration such content allergens.

5. Publications

Original Article

1. Nakalekha C., Yokoyama C., Miura H., Alles N., Aoki K., Ohya K. and Morita I. Increased Bone Mass in Adult Prostacyclin Deficient Mice, *J Endocrinol* 204, 125-133, 2010.
2. Nakajima M, Kanno T, Komada W, Miura H, Foxton RM, Tagami J. Effect of bonded area and/or fiber post placement on the fracture strengths of resin-core reconstructions for pulpless teeth. *Am J Dent*, 23(6), 300-304, 2010.
3. Sakanashi EN, Matsumura M, Kikuchi K, Ikeda M, Miura H. A comparative study of allergic contact dermatitis by patch test versus reflectance confocal laser microscopy, with nickel and cobalt. *Eur J Dermatol*, Nov-Dec; 20(6), 2010.