

## Oral and Maxillofacial Surgery

### 1. Staffs and Students (April, 2010)

Professor	Ken OMURA	
Associate Professor	Hiroyuki HARADA	
Junior Associate Professor	Yusuke NAKAJIMA	
Tokunin Junior Associate Professor	Keiichi MORITA	
Assistant Professor	Minoru IKUTA, Hiroaki SHIMAMOTO, Masaru SATO, Kae TANAKA	Yuji KABASAWA, Eriko MARUKAWA, Hirofumi TOMIOKA,
Graduate Student	Atsushi UESUGI, Kanao MATSUMOTO, Kiyoshi SATO, Mitsuhiro YOSHIMOTO, Yasuyuki SHIMADA, Sho MATSUKAWA, Shinsuke YAMAMOTO, Junpei SHIRAKAWA, Pradit RUSHATAMUKAYANUNT	Kenji INOMATA, Takuma KUGIMOTO, Yukinobu TAKAHASHI, Toshimitsu OSAKO, Ichiro HATAKEYAMA, Takahide TAGUCHI, Yukiko TAKAHASHI, Atsushi KIMURA,

### 2. Purpose of Education

The program is designed for acquiring the broad knowledge and basic skills of oral and maxillofacial surgery, mainly concerning the diagnostic procedure, treatment technique and the perioperative patient care. Also throughout the professional education, we promote the system in which each graduate student can select his or her special field in the full scope of oral and maxillofacial surgery in the future.

### 3. Research Subjects

- 1) Development of multidisciplinary treatment of oral cancer.
- 2) Clinical study on sentinel node navigation surgery for oral cancer.
- 3) Study on molecular markers for lymph node metastasis of oral cancer.
- 4) Clinical study on early detection of oral cancer by mouth washing.
- 5) Clinical study on skeletal and dental changes after distraction osteogenesis in patients with cleft lip and palate.
- 6) Clinical study on maxillomandibular skeletal and dental changes after orthognatic surgery.
- 7) Study on neurosensory disturbances using the heat flux technique.
- 8) Clinical study on pre-surgical nasoalveolar molding in patients with cleft lip and palate.
- 9) Clinical study on alveolar bone grafting with segmental osteotomy.
- 10) Multidisciplinary treatment of temporomandibular disorders.
- 11) Clinical and experimental studies on bone regeneration using  $\beta$ -TCP and/or platelet rich plasma.
- 12) Development of multidisciplinary treatment of oral mucosal diseases.
- 13) Clinical study on transplantation of teeth with enamel matrix proteins and/or bone grafting.

### 4. Clinical Services

The Oral and Maxillofacial Surgery Clinic examines yearly more than 5000 new patients with various diseases arising in oral and maxillofacial regions. The clinic has diplomat of the Japanese Society of Oral and Maxillofacial Surgeons and accepts many referrals from dentists and medical doctors. We provide a full range of services including extractions, removal of wisdom teeth and management of facial trauma, jawbone defect, facial deformity, temporomandibular joint disease, cleft lip and palate, oral mucosal disease, and benign and malignant tumors. The special outpatient clinics are organized by the specialists to offer the best service, especially for patients with malignant tumor, temporomandibular joint disease, cleft lip and palate, facial deformity and oral mucosal disease which need high degree of specialty and long term follow up. We also prepare some groups for inpatients with an emphasis on specialties, to provide the recent and advanced treatment.

## 5. Publications

### Original Article

1. Gutwald R, Haberstroh J, Stricker A, Rütther E, Otto F, Xavier SP, Oshima T, Marukawa E, Seto I, Enomoto S, Hoogendijk CF, Schmelzeisen R, Sauerbier S: Influence of rhBMP-2 on bone formation and osseointegration in different implant systems after sinus-floor elevation. An in vivo study on sheep. *J Craniomaxillofac Surg.* 38(8):571-579, 2010.
2. Harada H, Omura K: Preoperative concurrent chemotherapy with S-1 and radiotherapy for locally advanced squamous cell carcinoma of the oral cavity: Phase I trial. *J Exp Clin Cancer Res.* 29:33, 2010.
3. Higuchi Y, Kabasawa Y, Sato M, Kikuchi T, Aoki K, Ohya O, Maruoka Y, Omura K: Effect of recombinant human fibroblast growth factor-2 on bone formation in rabbit mandibular distraction models using  $\beta$ -tricalcium phosphate. *Congenit Anom.* 50(2):95-104, 2010.
4. Hirai H, Omura K, Harada H, Tohara H: Sequential evaluation of swallowing function in patients with unilateral neck dissection. *Head Neck.* 32(7):896-904, 2010.
5. Kayamori K, Sakamoto K, Nakashima T, Takayanagi H, Morita KI, Omura K, Nguyen ST, Miki Y, Imura T, Himeno A, Akashi T, Yamada-Okabe H, Ogata E, Yamaguchi A: Roles of interleukin-6 and parathyroid hormone-related peptide in osteoclast formation associated with oral cancers. Significance of interleukin-6 synthesized by stromal cells in response to cancer cells. *Am J Pathol.* 176(2):968-980, 2010.
6. Miyazaki H, Omura K, Kakizaki H: Orbital approach via swinging eyelid procedure. *Asian J Oral Maxillofac Surg.* 22(1):17-19, 2010.
7. Mochizuki Y, Omura K, Kaneoya A, Kayamori K, Yamaguchi A: Osteonecrosis of the mandible associated with bisphosphonate therapy: report of a case with surgical intervention. *Oral Surgery.* 2:153-157, 2010.
8. Mochizuki Y, Omura K, Sakamoto K, Nakanishi S, Satoh K, Marukawa E, Yamaguchi A: A case of primary combined neuroendocrine carcinoma with squamous cell carcinoma in the upper gingiva. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 109(4):e34-e39, 2010.
9. Mochizuki Y, Omura K, Harada H, Kayamori K, Okada N, Yamaguchi A: Malignant fibrous histiocytoma of the jaws: A report of 3 cases. *Asian J Oral Maxillofac Surg.* 22(3):143-147, 2010.
10. Park JJ, Omiya R, Matsumura Y, Sakoda Y, Kuramasu A, Augustine MM, Yao S, Tsushima F, Narazaki H, Anand S, Liu Y, Strome SE, Chen L, Tamada K: B7-H1/CD80 interaction is required for the induction and maintenance of peripheral T-cell tolerance. *Blood.* 116:1291-1298, 2010.
11. Prapinjumrune C, Morita K, Kuribayashi Y, Hanabata Y, Shi Q, Nakajima Y, Inazawa J, Omura K : DNA amplification and expression of FADD in oral squamous cell carcinoma. *J Oral Pathol Med.* 39(7):525-532, 2010.
12. Ritprajak P, Hashiguchi M, Tsushima F, Chalermarp N, Azuma M: Keratinocyte-associated B7-H1 directly regulates cutaneous effector CD8+T cell responses. *J Immunol.* 184: 4918-4925, 2010.
13. Uekusa M, Omura K, Nakajima Y, Hasegawa S, Harada H, Morita KI, Tsuda H: Uptake and kinetics of 5-aminolevulinic acid in oral squamous cell carcinoma. *Int J Oral Maxillofac Surg.* 39(8):802-805, 2010.