

# Oral and Maxillofacial Surgery

## 1. Staffs and Students (April, 2009)

Professor	Ken OMURA	
Junior Associate Professor	Hiroyuki HARADA,	Yusuke NAKAJIMA
Tokunin Junior Associate Professor	Daisuke ITO	
Assistant Professor	Minoru IKUTA,	Keiichi MORITA,
	Yuji KABASAWA,	Hiroaki SHIMAMOTO,
	Eriko MARUKAWA,	Hidetaka MIYAZAKI,
	Masaru SATO	
Graduate Student	Chanwit PRAPINJUMRUNE,	Yasuko HANABATA,
	Atsushi UESUGI,	Kenji INOMATA,
	Kanako MATSUMOTO,	Takuma KUGIMOTO,
	Kiyoshi SATO,	Yukinobu TAKAHASHI,
	Mitsuhiro YOSHIMOTO,	Toshimitsu OSAKO,
	Yasuyuki SHIMADA,	Ichiro HATAKEYAMA,
	Sho MATSUKAWA,	Takahide TAGUCHI,
	Shinsuke YAMAMOTO,	Yukiko TAKAHASHI

## 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.

## 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. Harada H, Omura K: Metastasis of oral cancer to the parotid node. *Eur J Surg Oncol.* 35(8):890-894, 2009.

2. Hirai H, Harada H, Okada N, Omura K: A case of basal cell adenocarcinoma of the upper gingiva. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 107(4):542-546, 2009.
3. Kaneoya A, Hasegawa S, Tanaka Y, Omura K: Quantitative analysis of invasive front in tongue cancer using ultrasonography. *J Oral Maxillofac Surg.* 67(1):40-46, 2009.
4. Kawano T, Kabasawa Y, Ashikawa S, Sato Y, Jinno S, Omura K: Accuracy and reliability of thermal threshold measurement in the chin using heat flux technique. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 108(4):500-504, 2009.
5. Komatsu S, Takenobu H, Ozaki T, Ando K, Koida N, Suenaga Y, Ichikawa T, Hishiki T, Chiba T, Iwama A, Yoshida H, Ohnuma N, Nakagawara A, Kamijo T: Plk1 regulates liver tumor cell death by phosphorylation of TAp63. *Oncogene.* 28(41):3631-3641, 2009.
6. Kuribayashi Y, Morita K, Tomioka H, Uekusa M, Ito D, Omura K: Gene expression analysis by oligonucleotide microarray in oral leukoplakia. *J Oral Pathol Med.* 38(4):356-361, 2009.
7. Matsubara J, Ono M, Negishi A, Ueno H, Okusaka T, Furuse J, Furuta K, Sugiyama E, Saito Y, Kaniwa N, Sawada J, Honda K, Sakuma T, Chiba T, Saijo N, Hirohashi S, Yamada T: Identification of a predictive biomarker for hematologic toxicities of gemcitabine. *J Clin Oncol.* 27(13):2261-2268, 2009.
8. Miyazaki H, Kato J, Kakizaki H, Nagata T, Uetake H, Okudera H, Watanabe H, Hashimoto K, Omura K: Submucosal glycerol injection-assisted laser surgical treatment of oral lesions. *Lasers Med Sci.* 24(1):13-19, 2009.
9. Miyazaki H, Kato J, Watanabe H, Harada H, Kakizaki H, Tetsumura A, Sato A, Omura K: Intralesional laser treatment of voluminous vascular lesions in the oral cavity. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 107(2):164-172, 2009.
10. Mochizuki Y, Matushima E, Omura K: Perioperative assessment of psychological states and quality of life of head and neck cancer patients undergoing surgery. *Int J Oral Maxillofac Surg.* 38(2):151-159, 2009.
11. Momin MA, Okochi K, Watanabe H, Imaizumi A, Omura K, Amagasa T, Okada N, Ohbayashi N, Kurabayashi T: Diagnostic accuracy of cone-beam CT in the assessment of mandibular invasion of lower gingival carcinoma: Comparison with conventional panoramic radiography. *Eur J Radiol.* 72(1):75-81, 2009.
12. Negishi A, Ono M, Handa Y, Kato H, Yamashita K, Honda K, Shitashige M, Satow R, Sakuma T, Kuwabara H, Omura K, Hirohashi S, Yamada T: Large-scale quantitative clinical proteomics by label-free liquid chromatography and mass spectrometry. *Cancer Sci.* 100(3):514-519, 2009.
13. Negishi A, Masuda M, Ono M, Honda K, Shitashige M, Satow R, Sakuma T, Kuwabara H, Nakanishi Y, Kanai Y, Omura K, Hirohashi S, Yamada T: Quantitative proteomics using formalin-fixed paraffin-embedded tissues of oral squamous cell carcinoma. *Cancer Sci.* 100(9):1605-1611, 2009.
14. Ono M, Matsubara J, Honda K, Sakuma T, Hashiguchi T, Nose H, Nakamori S, Okusaka T, Kosuge T, Sata N, Nagai H, Ioka T, Tanaka S, Tsuchida A, Aoki T, Shimahara M, Yasunami Y, Itoi T, Moriyasu F, Negishi A, Kuwabara H, Shoji A, Hirohashi S, Yamada T: Prolyl 4-hydroxylation of alpha-fibrinogen: a novel protein modification revealed by plasma proteomics. *J Biol Chem.* 284(42):29041-29049, 2009.
15. Piao Y, Bold B, Tayier A, Ishida R, Omura K, Okada N, Shibuya H: Evaluation of 18F-FDG PET/CT for diagnosing cervical nodal metastases in patients with oral cavity or oropharynx carcinoma. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 108(6):933-938, 2009.
16. Sang M, Ando K, Okoshi R, Koida N, Li Y, Zhu Y, Shimoizato O, Geng C, Shan B, Nakagawara A, Ozaki T: Plk3 inhibits pro-apoptotic activity of p73 through physical interaction and phosphorylation. *Genes Cells.* 14(7):775-788, 2009.
17. Yoda T, Sato T, Abe T, Sakamoto I, Tomaru Y, Omura K, Hatano N, Takato T, Ishii Y: Long-term results of surgical therapy for masticatory muscle tendon-aponeurosis hyperplasia accompanied by limited mouth opening. *Int J Oral Maxillofac Surg.* 38(11):1143-1147, 2009.
18. Yoshida S, Ito D, Nagumo T, Shirota T, Hatori M, Shintani S: Hypoxia induces resistance to 5-fluorouracil in oral cancer cells via G1 phase cell cycle arrest. *Oral Oncol.* 45(2):109-115, 2009.