

Oto-Rhino-Laryngology

1. Staffs and Students(April, 2010)

Professor	Ken KITAMURA	
Associate Professor	Atsunobu TSUNODA	
Assistant Professor	Yasuhiro SUZUKI,	Kazuchika ONO (~Aug),
	Yosuke ARIIZUMI (~Aug),	Taku ITO (~Sep),
	Hisashi TOKANO (Oct~),	Akemi IWASAKI (~Oct),
	Masatoki TAKAHASHI (~Oct)	
Hospital Staff	Taro SUGIMOTO,	Yoshihiro NOGUCHI,
	Akemi IWASAKI,	Kazuchika ONO,
	Hiroyuki NAKAMURA (~Sep),	
	Koji HAGINO,	Takao TOKUMARU,
	Naoto TAKAHASHI,	Taro FUJIKAWA (~Mar),
	Masatoki TAKAHASHI	
Research Student	Yoshimi TAMEKUCHI,	Katsura YAMAMOTO,
	Palida AIHAITI,	Ayako NISHIO (Apr~),
	Keiji HONDA (Apr~),	Naoto TAKAHASHI (Apr~),
	Ryoichi YOSHIMOTO (Apr~)	

2. Purpose of Education

Pre-graduate clinical education

Clinical systematic lecture covers anatomy, a general idea of diseases, their pathological conditions and treatments in the field of otorhinolaryngology. Clinical clerkship I (general diagnostic training) provides instruction in the diagnosis and testing techniques of the otorhinolaryngological field; clinical clerkship II (clinical training) provides detailed explanations of disease mechanisms, training in the performance of examinations, and clinical responsibilities involving both inpatient and outpatient care. Clinical clerkship III provides advanced training beyond the scope of clinical clerkship II. In particular, students develop an advanced understanding of otorhinolaryngological diseases by conducting outpatient procedures (including taking histories, visual inspection, and palpation), and gaining practical experience in assessment and diagnosis of patients' conditions. Furthermore, in the third clinical clerkship, students also attend a "micro-conference" on teaching. Finally, students are assigned to patients throughout their treatment, consistently dealing with the same individuals before, during, and after surgery; this allows the students to become familiar with the course of clinical care.

3. Research Subjects

- 1) Deafness gene analysis
- 2) Neurophysiological study of hearing
- 3) Histoanatomical study of ear, nose, throat, head, and neck
- 4) Eye movement analysis in patients with dizziness
- 5) Clinical study of treatment and prognosis in patients with allergic rhinitis and sinusitis
- 6) Treatment of tinnitus
- 7) Treatment using endoscope

4. Clinical Services

Otorhinolaryngology clinic provides full examinations and treatment for diseases in ear, nose, throat, head, and neck, including dizziness, sudden deafness, facial palsy, infectious disease and benign as well as malignant disease in the otorhinolaryngeal area. We have performed the first implementation of bone anchored hearing aid implant in Japan and since then we have experienced many patients for this surgery. We also have performed surgery for patients with malignant disease as well as skull base lesions in collaboration with the Department of the Head and Neck Surgery. Our outpatient clinic includes general ear, nose and throat clinic as well as allergy, sinusitis, dizziness, otitis media, tumor, deafness, and tinnitus clinic.

5. Publications

Original Articles

1. Tsunoda A, Takahashi N, Kitamura K: The relationship between the superior canal dehiscence syndrome and human evolution: Does human evolution cause vertigo? *J Vestibul Res-Equil* 20: 278, 2010.
2. Suzuki M, Tsunoda A, Shirakura S, Sumi T, Nishijima W, Kishimoto S: A novel permanent tracheostomy technique for prevention of stomal stenosis (triangular tracheostomy). *Auris Nasus Larynx* 37: 465-8, 2010.
3. Abe S, Noguchi Y, Kitamura K: What do patients with hereditary deafness think of genetic studies? *Auris Nasus Larynx* 37: 422-6, 2010.
4. Yashima T, Noguchi Y, Kawashima Y, Rai T, Ito T, Kitamura K: Novel ATP6V1B1 mutations in distal renal tubular acidosis and hearing loss. *Acta Otolaryngol* 130: 1002-8, 2010.
5. Shirakura S, Tsunoda A, Akita K, Sumi T, Suzuki M, Sugimoto T, Kishimoto S: Parapharyngeal space tumors: Anatomical and image analysis findings. *Auris Nasus Larynx* 37: 621-5, 2010.
6. Lelli A, Kazmierczak P, Kawashima Y, Müller U, Holt JR: Development and regeneration of sensory transduction in auditory hair cells requires functional interaction between cadherin-23 and protocadherin-15. *J Neurosci* 30: 11259-69, 2010.
7. Ariizumi Y, Hatanaka A, Kitamura K: Clinical prognostic factors for tinnitus retraining therapy with a sound generator in tinnitus patients. *J Med Dent Sci* 57: 45-53, 2010.
8. Ohno K, Noguchi Y, Kawashima Y, Yagishita K, Kitamura K: Secondary hyperbaric oxygen therapy for idiopathic sudden sensorineural hearing loss in the subacute and chronic phases. *J Med Dent Sci* 57: 127-32, 2010.
9. Kato T, Nishigaki Y, Noguchi Y, Ueno H, Hosoya H, Ito T, Kimura Y, Kitamura K, Tanaka M: Extensive and rapid screening for major mitochondrial DNA point mutations in patients with hereditary hearing loss. *J Hum Genet.* 55: 147-54, 2010.
10. Iwasaki A, Tokano H, Kamiyama R, Suzuki Y, Kitamura K: A 24-month-follow-up study of argon plasma coagulation of the inferior turbinate in patients with perennial nasal allergy. *J Med Dent Sci* 57: 11-5, 2010.
11. Takahashi M, Kimura Y, Sawabe M, Kitamura K: Modified paraffin-embedding method for the human cochlea that reveals a fine morphology and excellent immunostaining results. *Acta Otolaryngol* 130: 788-92, 2010.
12. Fujikawa T, Noguchi Y, Ito T, Takahashi M, Kitamura K: Additional heterozygous 2507A>C mutation of *WFS1* in progressive hearing loss at lower frequencies. *Laryngoscope* 120: 166-71, 2010.
13. Mochizuki E, Okumura K, Ishikawa M, Yoshimoto S, Yamaguchi J, Seki Y, Wada K, Yokohama M, Ushiki T, Tokano H, Ishii R, Shitara H, Taya C, Kitamura K, Yonekawa H, Kikkawa Y: Phenotypic and expression analysis of a novel spontaneous MYOSIN VI null mutant mouse. *Exp Anim* 59: 57, 2010.
14. Inaba Y, Tokano H, Ohtsu A, Kitamura K: A case of descending necrotizing mediastinitis penetrating to esophagus. *J Rural Medicine* 5: 190-3, 2010.
15. Ito T, Noguchi Y, Yashima T, Ohno K, Kitamura K: Hereditary hearing loss and deafness genes in Japan. *J Med Dent Sci* 57: 1-10, 2010.

Conference Presentations

1. Kitamura K: Molecular genetic analysis of the archival human temporal bones: quantitative cellular level analysis of mitochondrial DNA 3243A>G mutations and COCHmRNA. 3rd Shanghai International Otology & Audiology Conference 11th Hearing International Annual Meeting, Shanghai China, Oct 2010.
2. Kitamura K: Round Table: Genetic hearing loss - Modulator. 3rd Shanghai International Otology & Audiology Conference 11th Hearing International Annual Meeting, Shanghai China, Oct 2010.
3. Noguchi Y, Ito T, Nishio A, Honda K, Kitamura K: Audiovestibular findings in a Branchio-Oto syndrome patient with *SIX1* mutation. Collegium Oto-Rhino-Laryngologicum Amicitiae Sacrum. Budapest Hungary, August 2010.
4. Noguchi Y, Ito T, Nishio A, Honda K, Kitamura K: Variable audiovestibular findings in patients with enlargement of the vestibular aqueduct caused by mutations of *SLC26A4*, *SIX1*, and *ATP6V1B1*. Sixth international symposium on Meniere's disease and inner ear disorders. Kyoto, November 2010.
5. Noguchi Y, Takahashi M, Ohno K, Kitamura K: MicroRNA expression in the cochlea of age-related hearing loss mouse. Twelfth Triennial Meeting, the International Otopathology Society. Boston USA, June 2010.
6. Sugimoto T, Kishimoto S, Ohno K, Ariizumi Y: Transoral microscopic and endoscopic surgery for hypopharyngeal cancer. 4th World Congress of International Federation of Head and Neck Oncologic Societies. Seoul Korea, June 2010.
7. Kawada K, Sugimoto T, Nagai K, Nishikage T, Nakajima Y, Suzuki T, Hoshino A, Miyawaki Y, Okada T, Ohta S, Kawano T: Improving the endoscopic view of the hypopharynx and upper esophageal sphincter using transnasal small-caliber esophagogastroduodenoscopy during the valsalva maneuver. 18th United European Gastroenterology

Week. Barcelona Spain, October 2010.

8. Ohta S, Kawada K, Sugimoto T, Nagai K, Nishikage T, Nakajima Y, Suzuki T, Hoshino A, Miyawaki Y, Okada T, Swangsri J, Kawano T: Endoscopic laryngo-pharyngeal surgery using transnasal ultra-thin endoscope for superficial cancers of oro-hypopharynx. 18th United European Gastroenterology Week, Barcelona Spain, October 2010.
9. Kawashima Y, Kurima K, Madeo A, Mueller J, Hoffman H, Kastner D, Griffith A: DFNA34 maps to chromosome 1q44 and may be allelic with hearing loss-autoinflammation syndromes caused by mutations in NLRP3. ARO 33rd MidWinter Meeting (Poster). Anaheim USA, February 2010.
10. Kato T, Nishigaki Y, Noguchi Y, Ito T, Tanaka M, Kitamura K: Extensive and rapid screening for major mitochondrial DNA point mutations in patients with hereditary hearing loss. 2nd East Asian Symposium on Otology. Taipei Taiwan, November 2010.
11. Kato T, Nishigaki Y, Fuku N, Ueno H, Noguchi Y, Kitamura K, Tanaka M: Extensive and rapid screening for major mitochondrial DNA point mutations in patients with hereditary hearing loss. The 7th Conference of Asian Society for Mitochondrial Research and Medicine. Fukuoka, December 2010.
12. Takahashi M, Noguchi Y, Ito T, Fujikawa T: Application of cone beam computed tomography for otological surgeries. Twelfth Triennial Meeting The International Otopathology Society. Boston USA, June 2010.
13. Takahashi M, Kimura Y, Sawabe M, Kitamura K: Modified paraffin-embedding method for human cochlea that reveals a fine morphology and excellent immunostaining results. Twelfth Triennial Meeting The International Otopathology Society. Boston USA, June 2010.
14. Kitamura K: Clinical practice guideline for diagnosis and management of acute otitis media(AOM) in children. 2nd East Asian Symposium on Otology. Taipei Taiwan, November 2010.