

Gerodontology

1. Staffs and Students (April 2009)

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|-----------------------------|---------------------|--------------------|
| Professor | Hiroshi Uematsu | |
| Associate Professor | Tsuneto Ohwatari | |
| Junior Associate Professor | Ken-ichi Kobayashi, | Toshiaki Sekita |
| Assistant Professor | Kazuo Motomura, | Ayako Nakane, |
| | Shino Murata, | Shinya Mikushi, |
| | Syuuhei Takeuchi, | Satoshi Teranaka |
| Project Assistant Professor | Youko Wakasugi, | Nobuhiro Inokuchi, |
| | Maho Takashima | |
| Secretary | Kumiko Hagiwara | |
| Graduate Student | Ken-ichirou Ozaki, | Ayako Ogawa, |
| | Mihoko Sakuma, | Chiharu Yamada, |
| | Ayako Nomura, | Itsuko Umeda, |
| | Ruriko Suzuki, | Yousuke Akimoto, |
| | Souichi Shibano | |

2. Purpose of Education

Given the increased health needs of an aging society, we aim to integrate diverse clinical specialties related to geriatric dental practice and to educate individuals of fundamental studies in each field. We emphasize a comprehensive approach to patient interactions by examining daily life functionality rather than focusing only on their diseases.

With regard to dysphagia, which can lead to aspiration pneumonia, we provide comprehensive education on causes, diagnostic methods, and rehabilitation options from a dentistry point of view. Since we regard rehabilitation as the “medicine of daily living,” we emphasize that dysphagia rehabilitation should be considered a method to ameliorate “disability” rather than “diseases” by introducing practical approaches in addition to factual knowledge.

3. Reserch Subjects

- 1) Medical management during dental treatment in elderly patients
- 2) Dysphagia screening
- 3) Evaluation method of eating disorders and dysphagia
- 4) Dental approach to dysphagia
- 5) Coordination of mastication and swallowing
- 6) Addressing dysphagia during house visits

4. Clinical Services

We manage the outpatient special care and the outpatient dysphagia rehabilitation.

1. Outpatient special care for department elderly:

Comprehensive dental treatment is given to patients who are 65 years and older with diseases spanning multiple specialties. We work together with outpatient specialty departments for complicated cases. Since many of our patients are elderly individuals with cardiovascular disease, in order to carefully manage their overall medical condition, we measure oxygen saturation with a pulse oximeter, perform electrocardiography, and monitoring a blood pressure at the time of their dental treatment. We perform invasive treatments under controlled monitoring by a specialist and take extra safety measures. In addition to providing treatment, we hold consultations before treatment and carry out highly predictable safety management.

2. Outpatient dysphagia rehabilitation:

Patients in this department are mainly inpatients from hospitals affiliated with a medical school or an oral surgery department. For inpatients from oral surgery departments, we conduct the examination and training. For inpatients of our hospitals, we work together with the hospital's physical therapy department. We organize collaboration with these physical therapy and oral surgery departments, and accept about 100 to 150 cases from these departments. With the opening of the new outpatient department, we have received more and more requests from pulmonary, gastroenterology, and head and neck outpatient departments, as well as general medicine clinics and telephone consultations. For each case,

we provide continuous guidance not only to the patients but also to associated workers and family members. Furthermore, we help introduce examination and training methods upon requests from other medical institutions that wish to practice dysphagia rehabilitation.

5. Publications

Original Article

1. C.Tsushima, E.Saitoh, M.Baba, M.Yokoyama, W.Fujii, S.Okada, H.Uematsu.: Hyoid movement and laryngeal penetration during sequential swallowing. *J Med Dent Sci.* ;56(3):113-21, 2009.
2. H.Matsui-Inohara, H.Uematsu, T.Narita, K.Satoh, H.Yonezawa, K.Kuroda, T.Ito, S.Yoneda, T.Kawarai, H.Sugiya, H.Watanabe, H.Senpuku.: E2F-1-deficient NOD/SCID mice developed showing decreased saliva production. *Exp Biol Med (Maywood).* ;234(12):1525-36,2009.
3. Liu J, H.Uematsu, N.Tsuchida, M.Ikeda.: Association of caspase-8 mutation with chemoresistance to cisplatin in HOC313 head and neck squamous cell carcinoma cells. *Biochem Biophys Res Commun.* 390(3):989-94. Epub 2009.
4. N.Inokuchi, H.Tohara, H.Uematsu.: The effect of lateral shift of cricoid cartilage on pharyngeal swallowing. *Dysphagia.* 24(4):369-77. Epub 2009.
5. E.Inaba, H.Uematsu, Y.Nishiyama, H.Watanabe, H.Senpuku.: The role of anti-PAc (361-386) peptide SIgA antibody in professional oral hygiene of the elderly. *Gerodontology.* 26(4):259-67. Epub 2009.

Review Article

Book