

ANNUAL PUBLICATIONS

Department of Dental Anesthesiology

1993.1.-2000.3.

I. Staffs and Students (April, 1999)

Professor	Umino,M
Associate professor	Suzuki,N
Lecturer	Itoh,H
	Jinno,S
	Fukayama,H
Assistant professor	Kohase,H
	Yoshikawa,F
Senior resident	Sakurai,N
	Sugimoto,K
	Nomura,T
	Ohkubo,A
	Matsumoto,R
	Honda,K
Junior resident	Shiraishi,Y
	Kansaku,A
Secretary	Tajima,K
Graduate Student	Ideguchi,S
	Shibaji,T
	Hokazono,T
	Motohashi,K
	Kinoshita,T
	Takahashi,N
Special Student	Kuwabara,A
	Ohe,C
	Takagi,T
	Inada,H
	Masuda,T
	Kawashima,M
	Mashu,S
	Matsumoto,M
	Saitoh,Y
	Aizawa,H
	Yui,H
	Morita,H

II. Educational Outline of Graduate Course

Educational aim is to give undergraduate students knowledge and technique of anesthesia (including general and local anesthesia), systemic management for medically compromised patients, and orofacial pain management necessary in daily dental treatment. In an annual plan, lecture consists of four educational elements including anesthesia (general anesthesia and local anesthesia), psychosedation, cardiopulmonary resuscitation and pain control. In the item of the general anesthesia students are required to learn cardiorespiratory physiology, pharmacological action and mechanism of inhalation anesthetics, intravenous anesthetics and muscle relaxants. Since psychosedation is frequently employed for patients with dental phobia or systemic diseases, theoretical and technical lecture are delivered. Local anesthesia is most frequently used in dental clinic. Students should be required to learn pharmacology of local anesthetics, technical procedures and adverse effects. In the lecture of the cardiopulmonary resuscitation the principle of cardiopulmonary resuscitation, basic life support and advanced life support are theoretically lectured. Concerning the pain control, Etiology, diagnosis and treatment of orofacial pain like trigeminal neuralgia, cancer pain, atypical facial pain, and glossodynia, and trigeminal nerve or facial nerve paralysis are lectured.

As practical training, local anesthesia including infiltration and conduction anesthesia, inhalation sedation with nitrous oxide and cardiopulmonary resuscitation are scheduled. The resuscitation training is performed by using the cardiopulmonary resuscitation training system.

III. Research Subjects

- 1) Development of non invasive drug delivery system
- 2) Elucidation of the relation between non noxious or noxious stimulation and autonomic nervous reflex
- 3) Elucidation of etiology of neuropathic pain in orofacial region and development of those treatment
- 4) Elucidation of diffuse noxious inhibitory pain control in orofacial region
- 5) Clinical study of psychosedation and systemic management in dental treatment

IV. Publications (January, 1993-March, 2000)

A. Original Articles

- 1) Jinno, S., Ito H., Umino, M.: Stress associated with retirement causing atypical gingival pain. . Journal of Japanese Dental Society of Anesthesiology .8:135-138,1993(in Japanese).
- 2) Udagawa, T., Ishikawa, S., Toyooka, H., Amaha, K., Ito, H., Hasegawa, S.:Airway management during and after TGA operation for infant patient with cleft of lip, alveolar and palate. J.Clinic.Anesth.17:179-180,1993(in Japanese).
- 3) Murakami, S., Nasu, M., Fukayama, H., Krishnan, L., Sugawara, M.: Propranolol has direct anti-thyroid activity: inhibition of iodide transport in cultured thyroid follicles. Cell Biochemistry and Function. 11, 159-165, 1993.
- 4) Katayama, T., Kohase, H., Nakamura, Y.:Resetting of cortically induced rhythmical jaw movements by stimulation of cerebellar interpositus nucleus in the guinea pig. Brain Research,617,1993,143-146.
- 5) Sakurai, N.: Purification of Bone Morphogenetic Protein and Investigation of its Effects on Osteoblastic Cell Line UMR108. J. of the Stomatological Society, Jpan 60 (1), 169-182,1993
- 6) Ito, H., Jinno, S., Hirose, Y., Fukunaga, A.F.: ATP for prolonged deliberate hypotension during maxillofacial surgery. Drug Development Research.31:280,1994.
- 7) Jinno, S., Ito, H., Fukayama, H., Hirose, Y., Yoshida, J., Yamauchi, Y., Matsumoto, M., Sugimoto, T., Nagano, M., Suzuki, N., Kubota, Y.:A retrospective study of trigeminal paresthesia after dental treatment. Journal of Japanese Dental Society of Anesthesiology.22:111-119,1994 (in Japanese).
- 8) Jinno, S., Hua, X-Y., Yaksh, T.L.: Nicotine and acetylcholine induce release of calcitonin gene-related peptide from rat trachea. J.Appl.Physiol.76:1651-1656,1994.
- 9) Hua, X-Y., Jinno, S., Back, S.M., Yaksh, T.L.: Multiple mechanisms for the effects of capsaicin,bradykinin and nicotine on CGRP release from tracheal afferent nerves: Role of prostaglandins,sympathetic nerves and mast cells. Neuropharmacology. 33:1147-1154,1994..
- 10) Suzuki, N., Kohase, H., Yoshida, J., Mastumoto, M., Yamauchi, Y., Kubota, Y.: Electrical Stimulation of the Trigeminal Nerve and [14C] Deoxyglucose Concentration in the Somatosensory Cortex. . Journal of Japanese Dental Society of Anesthesiology , 22 (1), 1994, p22-p27.(In Japanese)
- 11) Shioiri, S., Hirata, Y., Yamane, M., Iritani, O., Sukanuma, T., Ishii, H., Amagasa, T., Ito, H., Jinno, S.: Research of HCV-antibody positive patients in department of the 1st oral surgery. J.Jpn.Stomatol.Soc. 44:1023-1024,1995(in Japanese).
- 12) Jinno S., Ito, H., Fukayama H., Umino, M., Muroga, S.: Application of Kampo medicine for trigeminal neuralgia with unidentified complain.Pain and Kampo Medicine 5:47-52,1995(in Japanese).
- 13) Fukayama, H.: Which is better - conscious sedation or deep sedation? Anesthesia Progress, 42, 100-102, 1995.
- 14) Fukayama, H., Jinno, S., Ito, H., Kohase, H., Suzuki, N.: Endotracheal tube replacement obturator. Journal of Japanese Dental Society of Anesthesiology. 23(2), 430-433, 1995. (in Japanese)
- 15) Hua, X-Y., Wong, S., Jinno, S., Yaksh, T.L.:Pharmacology of calcitonin gene related peptide release from sensory terminals in the rat trachea. Canadian J.Physiol. Pharmacol.73:999-1006,1995
- 16) Enomoto, S., Kohase, H., Nakamura, Y.: Dual brain stem projection from the cortical masticatory area in guinea-pig. NeuroReport, 6, 1995,1573-1577
- 17) Kohase H., Masuda T., Fukayama H., Kuba Y., Umino M.: Bronchospasm and Abdominal Distension due to epidural morphine; case reports, . Journal of Japanese Dental Society of Anesthesiology ., 23(4), 1995, 745-750 (in Japanese)
- 18) Kohase, H., Fukayama, H., Ida, S., Kuranayashi, T., Suzuki, N. :Anaphylactic shock with contrast medium during computed tomography, a case report. . Journal of Japanese Dental Society of Anesthesiology, 23(2), 1995, 444-445(in Japanese)
- 19) Jinno, S., Ito, H., Umino, M., Okabe, Y., Ai, M.:Pain disorder associated with dysbasia and dysmasesia. Pain and Kampo

Medicine 6:65-71,1996(in Japanese).

- 20) Kikuchi, K., Kohase, H., Fukayama, H., Umino, M.: Severe hypotension after flumazenil administration; a case report. *Journal of Japanese Dental Society of Anesthesiology*. 24(2), 305-309, 1996. (in Japanese)
- 21) Umino, M., Kohase, H., Fukayama, H., Kitagawa, T.: Constant current isolator for randomized tooth stimulation. *The Journal of the stomatological society, Japan*. 63(1), 245, 1996. (in Japanese)
- 22) Miwa, Z., Takagi, Y., Fukayama, H.: Dental treatment for I-cell disease patient. *Journal of Clinical Pedodontics*. January, 48-56, 1997. (in Japanese)
- 23) Suzuki, N., Kawashima, M., Takayama, H., Fukayama, H., Umino, M.: Analysis of body surface temperature and deep body temperature in patients with atypical facial pain. *Journal of Japanese Dental Society of Anesthesiology*. 25(3), 382-386, 1997. (in Japanese)
- 24) Kohase, H, Umino, M.: Continuous mandibular nerve block using a catheter, *J. Stomatological Soci. Jpn*,1997, 64(3), 455.(in Japanese)
- 25) Asahina,T., Watanabe,M., Sakurai,N., MoriM., EnomotoS.:Repair of Bone Defect in Primate Mandible using a Bone Morphogenetic Protein (BMP) - Hydroxyapatite - Collagen Composite. *J. Medical and Dental Science*. 44 (3) 63 - 70, 1997
- 26) Kato, S.: The Alteration Of Organ Regional Blood Flow (RBF), Tissue Oxygen (PtO₂) and Nitric Oxide Concentration (CtNO) during ATP-induced Hypotensive Anesthesia -Measurement of the RBF by Colored Microspheres Method in Rabbits-. *Journal of Japanese Dental Society of Anesthesiology*,1997, 25(2), 184-196. (in Japanese)
- 27) Asahina,T.,Kawano,S.,Umino,M.Hiraoka,m.:Effects of propofol of on aCa²⁺activated Cl current in rabbit ventricular myocytes, *J Med Dent Sci*.45(3),177-184, 1998.
- 28) Sugimoto, K., Kohase, H., Yoshikawa, F., Honda, K., Miyamoto, T., Fukayama, H., Ida, M., Kurabayashi, T., Umino, M.:Complications and emergency support system for contrast-enhanced computed tomography. *Journal of Japanese Dental Society of Anesthesiology*. 26(2), 310-311, 1998. (in Japanese)
- 29) Kurabayashi, T., Ida, M., Fukayama, H., Ohbayashi, N., Yoshino, N., Sasaki, T. : Adverse reactions to nonionic iodine in contrast-enhanced computed tomography: usefulness of monitoring vital signs . *Dentomaxillofacial Radiology* . 27, 199-202, 1998.
- 30) Kohase, H., Yoshikawa, F., Umino, M. : Transient Global Amnesia after General Anesthesia . *MASUL* . 47(4) , 481-483 , 1998 . (in Japanese)
- 31) Kohase, H., Miyamoto, T., Motohashi, K., Hokazono, T., Yoshikawa, F., Honda, K., Umino, M. : Analysis of Fiberoptic Endotracheal Intubation Cases with Limited Mouth Opening and Postoperative Oro-facial Defects . *Journal of Japanese Dental Society of Anesthesiology* 26(3) , 368-373 , 1998 . (in Japanese)
- 32) Miyamoto, T., Kohase, H., Ideguchi, S., Awane, J., Sakurai, N., Takahashi, H., Umino, M. : The new nasal airway applied for Sheridan™ SPIRAL-FLEX endotracheal tube, *Journal of Japanese Dental Society of Anesthesiology* .,1998, 26(3), 428-431. (in Japanese)
- 33) Klokkevold, PR., Fukayama, H., Sung, EC., Bertolami, CN. : The effect of chitosan (poly-N-acetyl glucosamine) on lingual hemostasis in heparinized rabbits . *Journal of Oral and Maxillofacial Surgery*, 57, 49-52, 1999.
- 34) Kohase, H., Fukayama, H., Suzuki, A., Okumura, H., Miura, M., Umino, M.:Problem oriented drill with tutorial method in evaluation of patients' general condition and planning of anesthetic management. *J. Jpn. Associ. Dent. Education*, 1999, 15(1),110-119. (in Japanese).
- 35) Ohwatari,T., Uematsu,H., Umino,M.: Medical history and blood pressure in Geriatric dental outpatients *Journal of Japanese Dental Society of Anesthesiology* 28:195-203,2000(in Japanese).
- 36) Zhou, H., Ito, H., Kobayashi, J., Yamaoka, K., Mineshita, S.: Oral granuloma associated with intestinal Behcet's disease.*J.Rheumatol*.27:1099-1101,2000.

B. Books (1993-99)

- 1) Ito, H.: Akino method for local anesthesia. Diagnosis and treatment of atypical facial pain. In *Dental treatment Q & A 14th Edition*. Watanabe Y. eds., Roppo syuppansha,Nagoya,p.1012-1013 & p.1135-1136,1993(in Japanese).
- 2) Suzuki N.: EEG, EMG and Monitoring. In: *Medical Examination, Data Analysis and Systemic Diseases 1st Edition.*, Michi K. et al. eds., Dental Diamond Co., Tokyo, pp. 89-93, 1993 (in Japanese).
- 3) Hirose Y., Ito H., Jinno, S.: Difference of recovery of neuromuscular function in adductor pollicis and flexor hallucis brevis following muscle relaxation with vecuronium. *Muscle relaxants: Physiologic and Pharmacologic Aspects*.Springer-Verlag, p415,1995.
- 4) Fukayama, H.: Postgraduate manual for oral and maxillofacial surgery. *Koku-Hoken-Kyokai*, Tokyo, p.160-165, 1995. (in Japanese)

Japanese)

- 5) Hirose, Y., Ito H., Jinno S.: Difference of recovery of neuromuscular function in adductor pollicis and flexor hallucis brevis following muscle relaxation with vecuronium. Muscle relaxants: Physiologic and Pharmacologic Aspects. Springer-Verlag, p415, 1995
- 6) Fukayama H., Suzuki N.: The management of patients before and during anesthesia., In: The Textbook of Oral Surgery for Dental Graduates, 1st edition, Narita R. et al. eds., Kohkuhokenkyokai, Tokyo, p. 158-167, 1995 (in Japanese).
- 7) Suzuki N.: Sedatives., In: Drugs in Dental Practice 1st Edition., Sasaki J. et al. eds., Dental Diamond Co., Tokyo, p. 72-75, 1995 (in Japanese).
- 8) Umino, M.: An emergency technique in the technique for medically compromised patients Nippon Dental Review, 71-80, separate volume, Nippon Sika Hyoron Co., Tokyo 1996.
- 9) Shimoyama, K., Umino, M.: dental caries of the homebound. In: Ecology of Dental caries. 1st edition. Ishiyaku pub. Inc. Tokyo 117-121, 1996 (in Japanese).
- 10) Umino, M.: An elemental point of diagnosis and treatment. In: Dental treatment for elderly patients, A manual of dental treatment for elderly and medically compromised patients, 178-182, Ishiyaku pub. Inc. Tokyo 1996 (in Japanese).
- 11) Ito, H.: Resuscitation for the aged patients during dental procedures. In Manual of Dental Treatment for the Aged and Medically Compromised Patients. Ueda, Y., Nagao, M., Michi, K., Suda, H. eds., Ishiyaku Publishing Tokyo, p249-269, 1996 (in Japanese).
- 12) Suzuki N.: Pretreatment physical evaluations and medical emergencies in the dental office., In: Dental treatment for the medically unfit, 1st edition., Ueda U. et al. eds., Ishiyakushuppan, Tokyo, p. 237-248, 1996 (in Japanese)
- 13) Suzuki N.: Patients with pain., In: Dental treatment and systemic diseases. 1st edition., Kohkita Y. et al. eds., Nihonshikahyoronsha, Tokyo, p. 220-226, 1996 (in Japanese).
- 14) Umino, M.: Anesthetic technique for tooth extraction: in Local anesthesia and psychosedation, Nippon Dental Review, 61-70, Nippon Sika Hyoron Co., Tokyo 1997 (in Japanese).
- 15) Umino, M.: Neurogenic disease, trigeminal neuralgia, trigeminal nerve paralysis, facial nerve paralysis, Project report on development of encyclopedia information in scientific research of life long, 882-886, Foundation for promotion of life long science, Tokyo, 1997 (in Japanese)
- 16) Umino, M.: Elderly patients; in correspondence to special physical background, Manual for postgraduate training in oral surgery, 1st 58-59, kokuu hoken kyoukai, Tokyo, 1997 (in Japanese).
- 17) Umino, M.: Management for patient complained of pain, Pain clinic in orofacial and mandibular region, 164-172 1st, Ed, Ishiyaku pub, Inc, Tokyo 1997 (in Japanese).
- 18) Suzuki N.: Pain clinic., In: Dental anesthesiology. 5th edition., Furuya H. et al. eds., Ishiyakushuppan, Tokyo, p. 513-526, 548-555, 1997 (in Japanese).
- 19) Suzuki N.: Patient evaluation, Neuralgic pain., In: Management of orofacial pain. 1st edition., Ishikawa T. et al. eds., Ishiyakushuppan, Tokyo, p. 99-110, 246-254, 1997 (in Japanese).
- 20) Ohyama, H., Ito, H. et al., eds.: Manual of Oral mouth Guard for Rugby Football. Kantoh rugby football association, Tokyo, 1998 (in Japanese).
- 21) Umino, M.: Cardiopulmonary resuscitation The newest Oral Surgery 4th Ed Ishiyaku pub. Inc. Tokyo 321-326, 1999 (in Japanese).
- 22) Umino, M.: Management of operative patient The newest Oral Surgery 4th Ed Ishiyaku pub, Inc. Tokyo 374-384, 1999 (in Japanese).
- 23) Umino, M.: Agents for cardiopulmonary resuscitation Current Dental pharmacology, 3rd. Ed. 398-409, Ishiyaku pub. Inc. Tokyo 1999 (in Japanese).
- 24) Suzuki N.: Oriental medicine., In: Oral medicine for dentists. 1st edition., Enomoto S. et al. eds., Nagasueshoten, Kyoto, p. 68-70, 1999 (in Japanese).
- 25) Fukayama, H.: A new local anesthetic system, the Wand. The Nippon Dental Review. 682, 5-8, 1999. (in Japanese)
- 26) Umino, M.: Anesthetic management for elderly patients, Dental Anesthesiology, 5th Ed. 433-447, Ishiyaku Pub. Inc. Tokyo 2000 (in Japanese).
- 27) Umino, M.: Treatment in oriental medicine, Dental Anesthesiology, 5th. Ed. 559-565, Ishiyaku pub. Inc. Tokyo 2000 (in Japanese).

C. Review Articles

- 1) Suzuki N.: Trigeminal neuralgia and atypical facial pain., Shikaitenbo, 83:1221-1228, 1994 (in Japanese).
- 2) Kohase, H.: The new intravenous anesthetics -propofol. J. Stomatological Soc. Jpn 1994, 61(4), p605. (in Japanese)
- 3) Suzuki N.: Differential diagnosis and treatment in orofacial pain., Journal of Japanese Medical Association, 113:1737-1740, 1995 (in Japanese).

- 4) Suzuki N.: Medical emergencies in the dental office., Journal of Japanese Dental Association, 48:12-25, 1995 (in Japanese).
- 5) Umino,M,:Electrical tooth stimulation somatosensory evoked potentials, J.Stomatol.Soc.Jpn.63(2):287- 295,1996(in Japanese).
- 6) Ito, H.:Induced hypotensive anesthesia during oral and maxillofacial surgery.Jpn.Dent.Soc.Anesthsiol surgery. Jpn.Dent.Soc.Anesthesiol.23:1-18,1996(in Japanese).
- 7) Fukayama, H.: Tooth extraction under intravenous sedation. LiSA (Life Support and Anesthesia), 3(6), 305-309, 1996. (in Japanese)
- 8) Suzuki N.: Multiple teethache., Dental Diamond, 22:19-20, 1997 (in Japanese).
- 9) Umino,M., Nakamura,Y., Kokubo,M., Misaki,T., Thurubuchi,S.: Development of non invasive and continuous local anesthesia method in orofacial region,J.J.D.S.17:63-72,1998(in Japanese).
- 10) Suzuki N.: Intractable orofacial pain., The Journal of Japan Dental Society of Oriental Medicine 17:1-15, 1998 (in Japanese).
- 11) Suzuki N.: Drugs in geriatric dentistry., The Journal of Japanese Dental Association, 51:14-27, 1998 (in Japanese).
- 12) Suzuki N.: Dental patients and psychological care., The Journal of Japanese Dental Association, 51:4-13, 1998 (in Japanese).
- 13) Fukayama, H.: Achievements of local anesthesia in dentistry 1. Methods for local anesthesia for dentistry. Journal of Japanese Dental Society of Anesthesiology. 26(1), 23-25, 1998. (in Japanese)
- 14) Suzuki N.: Topics in the study of pain., Shikairyō, 13:61-70, 1999 (in Japanese).
- 15) Suzuki N.: Neuropathic pain., Dental Diamond, 24:63-67, 1999 (in Japanese).
- 16) Fukayama, H., Kohase, H., Umino, M.: Ropivacaine; a new local anesthetic. The Journal of the Stomatological Society, Japan. 66(1), 131, 1999. (in Japanese)
- 17) Fukayama, H.: Hints for topical anesthesia. The Nippon Dental Review. 681, 72-75, 1999. (in Japanese)
- 18) Umino,M,Ueda,Y.:pain clinic in dentistrg.J,Jap,med,Assoc,separate volume(),482,1999(in Japanese).