

ANNUAL PUBLICATIONS

Department of Maxillofacial Reconstruction and Function Dentistry for the Disabled

1993.1.-1999.3.

I. Staffs and Students (March, 1999)

Professor	T. Ohyama	
Associate Professor	T. Yamazaki	
Assistant Professor	O. Shinozuka	H. Taniguchi
Research Associate	H. Mukohyama	R. Suzuki
	M. Hideshima	T. Ueno
	M. Inada	
Hospital Staff	T. Okano	Y. Yagasaki
	H. Koinuma	K. Miki
	M. Yokoi	T. Inoue
	H. Kondo	Y. Sasaki
	Y. Takada	T. Tomioka
Clinical Training Staff	M. Ishikawa	C. Kasama
	E. Sei	N. Takahashi
	H. Churei	Y. Kawahara
	Y. Kii	R. Saito
	Y. Tamamori	Y. Togawa
	S. Naka	K. Yoshida
	K. Gunji	Y. Ryo
Speech Therapist	M. mibu	
Dental Hygienist	A. Ohtani	R. Mizoguchi
	H. Harada	T. Adachi
Secretary	W. Shimizu	
Graduate Student	M. Ohki	S. Kuroda
	Y. Sumita	M. Takahashi
	K. Orapin	T. Nakayama
	T. Iida	Y. Iwakura
	R. Sato	S. Hlaing
	T. Takahashi	J. Nakajima
	Pak. I	S. Yoneda
	D. Ito	M. Eto
	S. Sato	Y. Sato
	S. Yoneda	H. Tagano
Special Student	T. Honma	E. Nitta
	S. Muto	N. Kagaya
	T. Sato	Y. Shigeoka
	N. Matsumoto	M. Ozawa
	N. Kakinuma	M. Komatsu
	H. Watanabe	T. Tanaka
	T. Hosoi	S. Koyama
	A. Moriyama	O. Iritani
	W. Uchida	M. Ohgaki
	H. Kogahara	M. Sakaguchi
	K. Suzuki	G. Sekiguchi
	K. Takagi	Y. Tanaka
	H. Nagao	Y. Yoshida

II. Educational Outline of Graduate Course

Dentistry for stomatognathic dysfunction is a branch of dental science for rehabilitation, which deal with functional deficiencies, disorders and defects in dento-maxillofacial areas.

The main objective of the course of dentistry for stomatognathic dysfunction is to provide student opportunity to gain sound understanding of the restoration of functional and esthetic disorders of oral and/or maxillofacial areas that are caused by congenital, developmental or acquired diseases by means of the high-advanced dental and medical cares. As a special dentistry, this field is divided into three branches.

Maxillofacial Prosthetics; The objective is to reconstruct the maxilla, mandible and face prosthetically.

Clinic for disabled patients; The objective is to treat oral problems of handicapped patients who are unable to receive normal dental care by reason of a disability which may be medical, physical, mental or emotional, or combination of any of these.

Speech-language therapy; The objective is to improve communicate skills for patients who have disorders of speech and language.

The course is given by lectures to fulfill these objectives.

III. Research Subjects

1) Maxillofacial Prosthetics

Prosthetic rehabilitation of patients with cleft lip and plate

Prosthetic rehabilitation of acquired oral and

Development of new maxillofacial implant material

Speech therapy of patients with oral defects.

2) Dentistry for the handicapped

Behavior management of handicapped patients

Classification is dental phobia patients

3) Sports Dentistry

The relation between the occlusion and physical exercise

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

A. Original Articles

1. Suzuki, R., Hideshima, M., Yanagisawa, H., Taniguchi, H., Shinozuka, O., Yamazaki, T., Ohyama, T.: Abnormalities of Teeth, Dentition, and Occlusion and their Dental Management for Patients with Cleft Lip and/or Palate (in Japanese). *Dent. for the Handicapped* 14(1):10-22,1993.
2. Ishiwata, T., Taniguchi, H., Tanaka, T., Kagaya, N., Yanagisawa, H., Ohyama, T.: Study on occlusal position on tapping and maximal biting in hemimandibulectomy patients. *Maxillofacial Prosthetics* 16(1), 17-28, 1993 (in Japanese).
3. Hagiya, N.: Modulation of spinal monosynaptic reflexes during rhythmical jaw movements and its central neural mechanism. *J. Stomatol. Soc., Jpn.* 61(1), 21-38, 1994 (in Japanese).
4. Hasegawa, Y.: Fundamental study on effects of the different form of mouthguards on mode shape and damping ratio of human dry mandible. *J. Stomatol. Soc., Jpn.* 61(1), 309-328, 1994 (in Japanese).
5. Hashimoto, Y.: Clinical study on the prognosis for maxillary defect patient. *Maxillofacial Prosthetics* 17,1-33, 1994 (in Japanese).
6. Suzuki, R., Taniguchi, H., Ohyama, T.: Study on Prosthodontic Procedure for patients with Bilateral Cleft Lip and Palate-Effects of Various Extensions of Splint on Tooth-Bearing Ability of Teeth Adjacent to the Cleft- *Journal of Japanese Cleft Association* 19(3),137-147,1994. (in Japanese).
7. Suzuki, R., Taniguchi, H., Ohyama, T.: Prothodontic abutment in four patients with unilateral cleft lip and palate. *Cleft Palate-Craniofacial Journal* 32(5),442-447,1995.
8. Ohyama, T., Ishibashi, K., Ohashi, Y., Seto, K., Bando, E., Hirai, T., Furuta, I., Ohnishi, M., Ohata, N., Okabe, S., Takeda, M., Tanaka, T., Tanabe, Y., Nokubi, T., Hideshima, M., Taniguchi, H., Shioiri, S.: A nationwide survey to establish diagnostic and treatment system of the maxillofacial prosthetic patient in Japan. *Maxillofacial Prosthetics* 18 (2), 43-69,1995. (in Japanese).
9. Mukohyama H., Kondo H., Nakano M., Inoue K., Miyahara T., Suzuki R., Yanagisawa H., Taniguchi H., Ohyama T.: Clinical study on patients with mandibular defect, Part I: Condition of the patients for past 14 years. *Maxillofacial Prosthetics* 18(1), 1-9 1995. (in Japanese).
10. Mukohyama H., Kondo H., Choi B., Nakano M., Ishiwata H., Inoue K., Hideshima M., Taniguchi H., Ohyama T.: Clinical study on patients with mandibular defect, Part II: Prosthodontic treatment for patients for past 14 years. *Maxillofacial Prosthetics* 18(1), 10-17 1995. (in Japanese).

11. Yanagisawa H., Alejandro I., Nakamura M., Ohya T., Kobayashi A.: Application of computer color matching for facial prosthetics. *Maxillofacial Prosthetics* 18(1), 85-94, 1995. (in Japanese).
12. Miyahara T., Hagiya N., Ohya T., Nakamura Y.: Modulation of human soleus H reflex in association with voluntary clenching of the teeth. *J. Neurophysiol.* 76(3), 2033-2041, 1996.
13. Ou M., Taniguchi H., Ohya T.: Analysis on decay rate of vibration following impact to human dry skull with and without mouthguards. *Bull. Tokyo Med. Dent. Univ.* 43(1), 13-24, 1996.
14. Ozawa S., Kasugai S.: Evaluation of implant materials (hydroxyapatite, glass-ceramics, titanium) in rat bone marrow stromal cell culture. *Biomaterials* 17(1), 13-24, 1996.
15. Takeda M., Shibuya H., Inoue T.: The efficacy of gold-198 grain mold therapy for mucosal carcinomas of the oral cavity. *Acta Oncologica* 35(4), 463-467, 1996.
16. Wang K., Ueno T., Taniguchi H., Ohya T.: Influence on isometric muscle contraction during shoulder abduction by changing occlusal situation. *Bull. Tokyo Med. Dent. Univ.* 43 (1), 1-12, 1996.
17. Inoue T., Taniguchi H., Sunahara Y., Shinozuka O., Suzuki R., Ohya T., Takeda M.: Clinico-statistical study on radiotherapy prostheses. *Maxillofacial Prosthetics* 19 (1), 62-70, 1996. (in Japanese).
18. Ou M., Taniguchi H., Hasegawa Y., Shinozuka O., Ohya T.: Evaluation of mouth guards using modal analysis. *J. of Clinic. Sports Med.* 13(2), 234-237, 1996. (in Japanese).
19. Kikukawa I.: Characterization of rat periodontal ligament cells in culture. *J. Stomatol. Soc., Jpn.* 63(2), 296-312, 1996. (in Japanese).
20. Inada M.: Modulation of evoked potentials following electrical tooth stimulation by pre-auditory stimulus. *J. Stomatol. Soc., Jpn.* 63(2) 313-333 1996 (in Japanese).
21. Tanaka T.: Depression of reciprocal Ia inhibition of crural motoneurons during rhythmical jaw movement in rabbit. *J. Stomatol. Soc., Jpn.* 63 (2), 153-163, 1996. (in Japanese).
22. Yanagisawa H., Alejandro I., Nakamura M., Ohya T., Kobayashi A.: Application of computer color matching for facial prosthetics. Part II: Translucency of human skin and concentration of pigments. *Maxillofacial Prosthetics* 19 (1), 55-61, 1996. (in Japanese).
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24. Kondo, H., Ohya T., Ohya K., and Kasugai, S.: Temporal changes of mRNA expression of matrix proteins and parathyroid hormone and parathyroid hormone-related protein (PTH/PTHrP) receptor in bone development. *Journal of Bone and Mineral Research* 12, 2089-2097, 1997.
25. Nguyen Thi Bich Ngoc, Mukohyama, H., Shwe Hlang, Kondo, H., Inoue, T., Taniguchi, H., and Ohya, T. : Prosthodontic treatment for patients with large mandibular defects; Porous hydroxyapatite grafts. *J Med Dent Sci* 45 : 93-98, 1997.
26. Taniguchi, H., Phankosol, P., Komin, O., and Ohya, T.: Clinico-statistical Comparison of Maxillofacial Prosthetic Treatment between Japan and Thailand. *Maxillofacial Prosthetics* 20 (1), 15-23, 1997.
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28. Ueno, T., Ueno, H., Suzuki, R., Taniguchi, H., Ohya, T.: Electromyographic study on stomatognathic function after prosthodontic procedures accompanying bite raising in cleft lip and palate. *J. Jpn. Cleft Palate Assoc.* 22 (4), 149-163, 1997. (in Japanese).
29. Itakura, M. : A study on tapping movements of patients with cerebral palsy. *J. Stomatol. Soc., Jpn.* 64(2) : 277-295 1997 (in Japanese).
30. Izumi, K : Modulation of evoked potentials following electrical Tooth and Finger Stimulation at Selective Attention Task. *J. Stomatol. Soc., Jpn.* 64(2) 296-315 , 1997 (in Japanese).
31. Kondo, G.: Study on effects of mouthguard on ventilation. *J. Stomatol. Soc., Jpn.* 64 (2), 326-347, 1997. (in Japanese).
32. Choi B : Study for searching equilibrium point in dentulous hemimandibulectomy patients. *J. Stomatol. Soc., Jpn.* 64 (2), 348-375, 1997. (in Japanese).
33. Morikawa M., Taniguchi H., Ohya T.: Evaluation of athletic mouthguard through vibration test on maxillary teeth of human dry skull. *J. Med. Dent. Sci.*, 45(1): 9-18. 1998.
34. Ito A.M., Ueno T., Taniguchi H., Ohya T.: Mobility of the obturator prostheses in hemimaxillectomy edentulous patients. *J. Med. Dent. Sci.*, 45(1): 19-27. 1998.
35. Sasaki Y., Ueno T., Taniguchi H., Ohya T.: Effect of teeth clenching on isometric and isokinetic strength of ankle plantar flexion. *J. Med. Dent. Sci.*, 45(1): 29-37, 1998.

36. Du L., Suzuki R., Taniguchi H., Ohyama T. : Application of modal analysis to human subjects : comparison of healthy subjects and cleft lip and palate subjects. J Med Dent Sci, 45 : 39-49, 1998.
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38. Tomioka T.: Mandibular Movements In Dentulous Cleft Lip and Palate Patients with Lingualized Occlusion. Journal of Stomatol. Soc., Jpn., 65: 213-232, 1998. (in Japanese).
39. Taniguchi H., Ueno T., Sasaki Y., Sumita Y., Yamanaka T., Ohyama T., Wang K.: Influence of MORA on isometric muscle strength of upper appendage during shoulder adduction. J. Sports. Dent., 1(1): 31-39, 1998.
40. Ueno T., Ito A.M., Shwe H., Komin O., Mukohyama H., Shinozuka O., Taniguchi H., Phankosol P., Ohyama T.: Stability of occlusion of obturator prostheses in maxillectomy edentulous patients. Maxillofacial Prosthetics, 21(2): 56-65, 1998.
41. Oki M., Taniguchi H., Ohyama T.: Evaluation of obturator prostheses using vibration analysis. J Med Dent Sci, 46 : 21-30, 1999.
42. Komin O., Taniguchi H., Oki M., Ueno T., Takada Y., Suzuki R., Shinozuka O., Ohyama T.: Observation of the vibratory characteristics of the inanimate human skull with mouthguards through displacement value on modal analysis. J. Sports. Dent., 2(1): 17-25, 1999.
43. Sumita Y., Sasaki Y., Ueno T., Taniguchi H., Ohyama T.: Effect of teeth clenching on the force-velocity relationships in isokinetic knee extension. Jpn. J. Phys.Fitness Sports Med. 48: 365-374, 1999.
44. Takahashi M., Hideshima M., Park I., Taniguchi H., Ohyama T. : Study of mandibular movements in mandibulectomy patients - Border movements and functional movements during Mastication, Deglutition and Speech -. J Med Dent Sci, 46 : 93-103, 1999.
45. Lundberg P, Bostrom I, Mukohyama H, Bjurholm A, Smans K, Lerner UH : Neuro-hormonal control of bone metabolism: vasoactive intestinal peptide stimulates alkaline phosphatase activity and mRNA expression in mouse calvarial osteoblasts as well as calcium accumulation mineralized bone nodules. Regul Pept 1999 Nov 30;85(1):47-58
46. Kuroda S. Kasugai S. Oida S. Iimura T. Ohya K. Ohyama T. Anabolic Effect of Aminoterminally Truncated Fibroblast Growth Factor 4 (FGF4) on Bone. Bone. 25(4):431-7, 1999.
47. Susami T, Kuroda T, Yoshimasu H, Suzuki R : Ellis-van Creveld Syndrome: Craniofacial Morphology and Multidisciplinary Treatment. Cleft Palate-Craniofacial Journal. 36(4), 345-352, 1999.

B. Books

1. Obana, J., Ohyama, T., Hosoi, N.: Prosthodontic treatment for maxillary and mandibular teeth cross each other(Eichiner classification C1). Ishiyaku Publishers Inc., Tokyo, 1-276, 1994. (in Japanese).
2. Ohyama, T., Taniguchi, H., Yanagisawa, H., Hideshima, M., Suzuki, R.: Principles of Prosthodontic Planning for Cleft Lip and Palate Patient. Ishiyaku Publishers, Tokyo 1997. (in Japanese).
3. Shinozuka, O., Ohyama, T.: Persons with Disabilities. In: Oral Diagnosis. Masuda T. eds., Sunasyobo, Tokyo, p.481-488, 1996(in Japanese)
4. Yamazaki, T., Shinozuka, O.: Home Care series No. 26 Dentistry for Persons with Disabilities. Yobosessyu Research Center Yobosessyukenhigaisyahokenhukusi Center, Tokyo , 1996(in Japanese).
5. Shinozuka, O.:Dentistry for Persons with Disabilities. In: Manual for Clinical Training in Dentistry. Onose H. et al.eds., Ishiyaku Publishers Inc., Tokyo,p.212-213 ,1997 (in Japanese).
6. Shinozuka, O., Ohyama, T.: Oral and Dental Trauma in Children and Adolescents. In : Sports Medicine for the Children ; New Edition. Ikata T. et al eds., Nankodo, Tokyo, p.88-90, 1997 (in Japanese).
7. Yamazaki, T.: Dental Practice of Strong Electrolyzed Acid Water, The Quintessence Tokyo, 1997 (in Japanese).
8. Yamazaki, T.: Mastication Science. Japanese Society for Mastication Science and Health Promotion. 131-135, Kyobun-sha, Tokyo, 1997 (in Japanese).
9. Ohyama, T., Taniguchi , H., Ueno, T., et al.: Sports dentistry in clinic. Igaku Joho-sha Ltd., Tokyo, 1998. (in Japanese).
10. Taniguchi, H. : Miyanaga, Y., Kawano, I.: Sports medicine for athletic trainer. Bunko-Do, Tokyo, 178-180, 1998. (in Japanese).

C. Review Articles

1. Taniguchi H, Ohyama T.: Prosthodontic Procedures Following Reconstructive Surgery for Mandibulectomy Patients. The

- Japanese Journal of Plastic and Reconstructive Surgery 36 (1) ,78-87,1993. (in Japanese).
- 2 . Ohyama T.: Review and outlook on sports dentistry. J. Stomatol. Soc., Jpn. 59 (4) ,607-612,1992. (in Japanese).
 - 3 . Yanagisawa H., Taniguchi, H., Ohyama T.,: Prosthetic Rehabilitation for Head and Neck Cancer Patients. JOHNS Journal of Otolaryngology Head and Neck Surgery 9(7),97-102, 1993. (in Japanese).
 - 4 . Hideshima M., Ohyama T.,:A Clinical Survey of the Patients with Protheses for Acquired Mandibular Defects in Japan. Journal of Dental Medicine. 38(4),495-501, 1993. (in Japanese).
 - 5 . Taniguchi T. ,Ishiwata T., Ou M.,K Wang., Ohyama T.,: Occlusal position of hemimandibulectomy patients. The Journal of Dental Medicine 38(4),539-547,1993. (in Japanese).
 - 6 . Mukohyama H., Ohyama T.: Prosthodontic treatment following alveolar ridge augmentation with porous hydroxyapatite. The Journal of Dental Medicine 38(4), 567-572, 1993. (in Japanese).
 - 7 . Taniguchi H., Inoue T., Ou M., Wang K., Ohyama T., Takeda M.: Prosthetic treatment for radiotherapy patients. The Journal of Dental Medicine 38(4), 629-634, 1993. (in Japanese).
 - 8 . Taniguchi H.,Ohyama T.: Sports and dentistry. J. Pediatric Practice 57(11), 1957-1961, 1994. (in Japanese).
 - 9 . Yamazaki, T.: Dental Disturbance of Cerebral Palsy Patients -Outline- Dental Practice Q & A Dental 19 : 1156-1157, 1994, Roppou Shuppan, Tokyo (in Japanese).
 - 10 . Yamazaki, T.: Dental Disturbance of Cerebral Palsy Patients -Management- Dental Practice Q & A Dental 19 : 1160-1161, 1994, Roppou Shuppan, Tokyo (in Japanese).
 - 11 . Yamazaki, T.: Dental Disturbance of Cerebral Palsy Patients -Tooth Cleaning- Dental Practice Q & A Dental 19 : 1160-1161, 1994, Roppou Shuppan, Tokyo (in Japanese).
 - 12 . Taniguchi, H., Kondo, H., Ohyama, T.: Effects of a Mouthguard and It's Application, The Journal of the Tokyo Dental Association 45, 557-565, 1997. (in Japanese).
 - 13 . Yamazaki, T.: Opinion for Corrosion of the Strong Electrolyzed Acid Water, 16 : 37, 1997, The Quintessence, Tokyo (in Japanese).