### ANNUAL PUBLICATIONS

## Department of Maxillo-Facial Rehabilitation

I. Staffs and Students (April, 1999)

1993.1.-2000.3.

# Section of General Dentistry

| Professor          | Makoto Matsumoto  |
|--------------------|-------------------|
| Lecturer           | Tatsuya Shinogaya |
| Research Assistant | Yasuhiro Tanaka   |
|                    | Aki Sodeyama      |
|                    | Sou Toda          |
| Resident           | Kaori Gunji       |
|                    | Yuriko Toru       |
| Secretary          | Michiyo Suganuma  |
| Graduate Student   | Minoru Kimura     |
|                    | Ko Kawashita      |
|                    | Mamoru Takishita  |
|                    | Momoko Hishida    |
| Special Student    | Hiroyuki Watanabe |
|                    | Shigeto Ozawa     |
|                    | Hiroyuki Araki    |
|                    | Mitsuhiko Someya  |
|                    | Junko Tajima      |

#### II. Educational Outline of Graduate Course

The main subject of investigation items has been clinical and physiological analysis of occlusal reconstruction for occlusal deficit in edentation status, especially under masticatory function, also confirming the methods for the objective evaluation of those functions, including aesthetic and phonetic recovery for genetic human society so called oral rehabilitation.

Consequentially oral rehabilitation entails the performance of all the procedures necessary to produce healthy, well functioning, self-maintaining masticatory mechanisms. So students are needed to master all those clinical procedures and theoretical argumentum.

#### **III. Research Subjects**

1) Bite force and occlusal load distribution in normal complete dentitions of young adults.

Many investigators have studied the bite force to assess stomatognathic function. Therefore, it is the aim to investigate the bite force and its distribution over the maxillary dentition in completely dentate subjects by using Prescale system.

European Journal of Prosthodontics and Restorative Dentistry 7 : 65-70, 1999.

2) Evaluation for prosthodontic treatment with occlusal force distribution : a methodological study.

It was describes that a new method to apply bite force measurement as an objective evaluation prosthodontic treatment. The occlusal load centre, i.e. the centre of balance of distributed occlusal force on the dentition is used as an index of bite force.

European Journal of Prosthodontics and Restorative Dentistry 6 : 121-125, 1998.

3) A follow-up study on changes in mastication after insertion of mandibular bilateral free end saddle denture by EMG It is aim to investigate changes in the mandibular shortened arch, whose occlusal deficit had been reconstructed by removable partial denture, during mastiction by using the EMG analysing system.

Koukubyou-gakkaishi, 64 (1): 1-24, 1997 (in Japanese)

4) A clinical and physiolosical evaluation of masticatory center in unilateral shortened arch and RPD treatment.

It is aim to elucidate the relation between distribution of occlusal contacts in unilateral shortened arch and prosthodontic treatment, those occlusal loads, coordinates of the points and amounts, in relation to masticatory musculature activities by EMG and Prescale.

Koukubyou-gakkaishi, 66 (2) : 6-24, 1999 ( in Japanese )

5) A clinical evaluation of masticatory function in maxillary bilateral free-end-saddle removable partial denture in changes of mucosal support area.

The aim is to elucidate optimal relations between functional load distribution of periodontal supports and mucosal supports from denture bearing area in maxillary bilateral free-end-saddle RPD.

Koukubyou-gakkaishi, 66 (4): 72-86, 1999 ( in Japanese )

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

#### A. Original Articles

- 1 ) Goto T., Igarasghi Y. : Long-term follow-up study on cone-crown-telescope retained dentures (C.C.R.D.'s) Part 1. over 10 years follow-up report on C.C.R.D.'s. The Journal of the Japan prosthodontic Society 39(4) : 688-695, 1995.
- 2) Goto T., Igarasghi Y.: Long-term follow-up study on cone-crown-telescope retained dentures (C.C.R.D.'s) Part 2. case reports on C.C.R.D.'s with long time wearing. The Journal of the Japan prosthodontic Society 39(5): 816-824, 1995.
- 3) Katoh M., Fueki K., Miyoshi K., Yugami K., Goto T.: Evaluation of masticatory crushability by utilizing multivariate analysis. The Journal of the Japan prosthodontic Society 39(1): 165-170, 1995.
- 4) Sakima T.: Control ability to coordination pattern of masticatory muscle activities during maximal clenching in centric occlusal position. The Journal of the Stomatological Society 62(4): 551-575, 1995. (in Japanese)
- 5 ) Shinogaya T., Baba K., Akishige S., Sakima T., Matsumoto M. : Study on relationship between anterior components of lateral occlusion to muscle activity Part 1. Anterior components of lateral occlusion. The Journal of the Stomatological Society 62(2) : 287-302, 1995. (in Japanese)
- 6 ) Shinogaya T., Tanaka Y., Sodeyama A., Matsumoto M. : Study on relationship between anterior components of lateral occlusion to muscle activity Part 2. Muscle activity. The Journal of the Japan prosthodontic Society 39(6) : 1027-1035 , 1995. (in Japanese)
- 7 ) Shinogaya T., Toda S., Watanabe H., Matsumoto M. : Study on relationship between anterior components at canine's edge to edge lateral position and muscle activity during maximal voluntary clenching, The Journal of the Japan prosthodontic Society 40(2) : 370-378, 1996. (in Japanese)
- 8) Sodeyama A.: A clinical and physiolosical evaluation of masticatory center in shortened arch. The Journal of the Stomatological Society 63 (4) : 599-619, 1996 (in Japanese)
- 9 ) Shinogaya T., Kimura M., Matsumoto M. : Effects of occlusal contact on the level of mandibular elevator muscle activity during maximal clenching in lateral positions. journal of Medical and Dental Sciences 44 (4), : 105-112, 1997.
- 10) Shinogaya T., Sodeyama A., Matsumoto M. : Bite force and occlusal load distribution in normal complete dentitions of young adults. European Journal of Prosthodontics and Restorative Dentistry 7 : 65-70, 1999.
- 11) Shinogaya T., Matsumoto M. : Evaluation for prosthodontic treatment with occlusal force distribution : a methodological study. European Journal of Prosthodontics and Restorative Dentistry 6 : 121-125, 1998.
- 12) Sodeyama A., Sinogaya T., Matsumoto M. : Reproducibility of maximal bite force distribution over dentition. The Journal of the Stomatological Society 65: 339-343, 1998 (in Japanese)
- 13) Tanaka Y.: A follow-up study on changes in mastication after insertion of mandibular bilateral free end saddle denture by EMG. The Journal of the Stomatological Society 64 (1): 1-24, 1997 (in Japanese)
- 14) Toda S. : A clinical and physiolosical evaluation of masticatory center in unilateral shortened arch and RPD treatment. The Journal of the Stomatological Society 66 (2) : 6-24, 1999 (in Japanese)
- 15) Kimura M.: A clinical evaluation of masticatory function in maxillary bilateral free-end-saddle removable partial denture in changes of mucosal support area. The Journal of the Stomatological Society 66 (4) : 72-86, 1999 (in Japanese)

#### B. Books

- 1 ) Goto T. : Diagnosis and treatnment for removable prosthodontics. Ishiyaku pub. inc., Tokyo, 285-288, 1995. (in Japanese)
- 2 ) Goto T. : Treatment Planning and Designing in Removable Partial Denture. Ishiyaku pub. inc. , Tokyo, 1995. ( in Japanese )

- 3) Goto T.: Treatment Planning and Designing in Removable Partial Denture. (translated to Korean language), Jisungsa pub. inc., Korea, 1996. (in Korean)
- 4 ) Goto T. : Long-term follow-up on precision partial denture. Ishiyaku pub. inc. , Tokyo, 1995. ( in Japanese )
- C. Review Articles
- 1 ) Matsumoto M. : Denture planning for few remaining teeth patient preserving abutment. The Journal of the Dental Association 46(5), 6-15, 1993. (in Japanese)
- 2 ) Matsumoto M. : The philosophy and clinical guide in preserving remaining teeth. Dental journal 38(6), 875-879, 1993. ( in Japanese )
- 3 ) Matsumoto M.: Masticatory perception. Advances in Neurological Sciences 37(5): 769-774, 1993. ( in Japanese )
- 4 ) Matsumoto M.: Oral Rehabilitation in Occlusal Treatment. The Journal of the Stomatological Society 60(4): 429-439, 1993. ( in Japanese )
- 5 ) Goto T.: Rigid suport and konus krone. Practice in prosthodontics, 29 : 6-50, 1996. ( in Japanese )
- 6 ) Goto T.: The point of planning for removable partial denture in choice of retentive mechanism. Shika-rinsho, 9 : 27-36, 1995. (in Japanese )