



제 56차 대한악안면성형재건외과학회 종합학술대회 및 정기총회

The 56th Congress of the Korean Association of
Maxillofacial Plastic and Reconstructive Surgeons
November 3(Fri) – 4(Sat), 2017 | Global Convention Plaza, Seoul



Symposium 5



Prof. Tetsu Takahashi

Division of Oral and Maxillofacial Surgery,
Department of Oral Medicine and Surgery
Tohoku University Graduate School of Dentistry, Sendai, Japan

Japan

C.V.

- 1987 Graduated from Post-Graduate of Tohoku University School of Dentistry
- 1987 Visiting researcher, University of Southern California, Los Angeles, USA
- 1990 Assistant Professor, Tohoku University, School of Dentistry
- 1994 Assistant Professor, Akita University, School of Medicine
- 2000 Professor and Chairman, Second. Dept. OMF, Kyushu Dental College, Fukuoka, Japan
- 2012 Professor and Chairman, Div. of OMF, Tohoku University Graduate School of Dentistry, Sendai Japan

Social Activities

Executive Director, Asian Association of Oral and Maxillofacial Surgeons
Executive Board Member, The Japanese Society of Oral and Maxillofacial Surgeons
Secretary General, PanPacific Implant Society (PPIS)
Chairman of S.O.R.G. Far East Section
Associate Editor, Journal of Oral and Maxillofacial Surgery, Medicine, and Pathology

KAMPRS 2017 Secretariat

Tel: +82-53-740-0414 | Fax: +82-53-742-9007 | E-mail: info.kamprs2017@gmail.com | Website: <http://kamprs.or.kr/>



제 56차 대한악안면성형재건외과학회 종합학술대회 및 정기총회



The 56th Congress of the Korean Association of
Maxillofacial Plastic and Reconstructive Surgeons
November 3(Fri) – 4(Sat), 2017 | Global Convention Plaza, Seoul

Surgery-first Approach in Orthognathic Surgery: Its Biological Rationale of the Reduced Treatment Time

Tetsu Takahashi

Division of Oral and Maxillofacial Surgery, Department of Oral Medicine and Surgery, Tohoku University
Graduate School of Dentistry, Sendai, Japan

The disadvantages of the current orthodontic treatment both before and after orthognathic surgery include a long treatment time and temporary worsening of facial appearance during the orthodontic treatment. Nagasaka and Sugawara et al. proposed "The surgery-first approach (SFA), without presurgical orthodontic treatment in 2009. Previous reports showed that treatment time approximately 6-12 months shorter using SFA compared with using a conventional orthodontics-first approach. It is well recognized that the phenomenon of postoperatively accelerated orthodontic tooth movement occurs in patients having orthognathic surgery. After an osteotomy, bone remodeling around the healing tissue facilitates the healing process. Liou et al. demonstrated that Alkaline phosphatase (ALP) and C-terminal telepeptide of type I collagen (ICTP), both of which are known to be related to osteoclastic activities/metabolic changes in the dentoalveolous, are increased 3-4 months after osteotomy in SFA patients. We also found that ICTP and osteocalcin (OCN) are increased after osteotomy in SFA patients. Those results indicated that regional acceleratory phenomenon (RAP) as well as systemic acceleratory phenomenon (SAP) occurred after osteotomy, which would accelerate orthodontic tooth movement, resulting in the reduced treatment time in SFA patients. With the advantages of earlier improvements in patient facial aesthetics and dental function, the reduction in difficulty and treatment duration of orthognathic management, and increasing patient acceptance, SFA is regarded as a good and effective treatment alternative.

KAMPRS 2017 Secretariat

Tel: +82-53-740-0414 | Fax: +82-53-742-9007 | E-mail: info.kamprs2017@gmail.com | Website: <http://kamprs.or.kr/>