

第 39 回

福岡歯科大学学会総会

(プログラム, 予稿集)

2012

福岡歯科大学学会

第 39 回

福岡歯科大学学会総会

開催日 平成 24 年 11 月 18 日 (日)
会 場 福岡歯科大学本館 9 階講堂
福岡市早良区田村 2 丁目 15-1
TEL (092) 801-0411

学会長 大関 悟

抄 録

シンポジウム

Innovation of Japanese Dental Education From Dentistry To Stomatology
福岡歯科大学学長 北村憲司 先生

Transfer of Scientific Knowledge into the Dental Curriculum
British Columbia 大学歯学部長 (カナダ) Shuler 先生

Toward patient-centered practice
慶熙歯科大学学部長 (韓国) Joon Bong Park 先生

NOVEL ORAL MEDICINE
ヤンゴン歯科大学講師 (ミャンマー) Tun Ngwe 先生

上海交通大学教授 (中国) 沈 剛 先生

Innovation of Japanese Dental Education

From Dentistry To Stomatology

Fukuoka Dental College
Rector Kenji Kitamura, DDS, DDSc

Modern dental system in Japan was started nearly 150 years ago, when the Meiji Restoration was completed. At the time, modern medicine and medical education were introduced from Germany, whereas dentistry was introduced from USA. Even in the USA, dental education at the Baltimore College of Dental Surgery had been established only 30 years before the Meiji Restoration. By the government policy of the “Making Wealthy Country and Militarily Strength”, the government established the medical schools in the country, and the medical education was started in Japan. On the other hand, dental education was unattended, and dental clinicians, in general, privately trained their students. Late 19c, the first private dental school had founded in Japan, and early 20c, first Department of Dentistry was established in the medical school of the Tokyo University. Thus in Japan, both dental school and medical school educated the dentists, exactly saying, the latter should be stomatologists. After the 150 years, Japanese education system partly changed after the World War II, and all professional schools of dentistry reorganized as new universities. However, medical doctors and dentists have still been educated separately, and no medical student has opted the stomatology for his specialty.

The development of science and technology in latest hemi-century, have changed treatments against various diseases, and even the philosophy. Because of the improvement of nutrition, sanitation and social environment, average life span in Japan is extended, and this causes elucidation of numerous types of senile diseases. Furthermore, this also elucidated the mutual relation between oral diseases and systemic diseases, for examples, periodontitis and diabetes mellitus, mastication and dementia, and so on. Thus, purposes of the dental treatments should change from the treatments of diseases of teeth and surrounded tissues of younger patients to those on and around mouth of elderly patients with systemic diseases; dental education should be adapted for modern social environment; dentistry should change the a part of medicine; and dentist should be stomatologist.

We are changing our curriculum to adapt the aging society, of which concepts are (1) clinical dentistry based on biology, (2) clinical medicine for understanding whole body, (3) basic medicine and life sciences for clinical medicine and dentistry, and (4) appropriate attitudes for medical profession. In 2010, the Research Center for Regenerative Medicine was organized to shift the dental point of view to the biology-based dentistry from the material-based one. Five medical departments were established, and 2 more departments are scheduled to set up. In other 3 departments, medical doctors are working full-time with dentists. Total school hours for general medicine increased nearly triple in recent 8 years. Advanced Science Research Center and Aging Control Research Center are organized, and play an active part of basic medicine and life sciences. Tutors are appointed in every 8 students in each class, to coach and advise their students.

On the world-wide points of view, dental education shifted to odontology-based curriculum, by placing emphasis on dental skill, however, as mentioned above, in aging society a stomatology-based curriculum is the best way for dental education. Relationships

between medicine and dentistry has become closer than the past, and patients' expect is the good healthy condition of their total body and mind, not the health of the separate organs. Thus, dentists should be stomatologists, who guard peoples' health through the oral health, and dentistry should be stomatology, a specialty of medicine.

Rector Kenji Kitamura, DDS, DDSc

1975 Graduated from the Kyushu University, Faculty of Dentistry

1977 Left the Graduate School of Dental Science, Kyushu University

1977 Assistant, Kyushu University, Faculty of Dentistry, Department of Oral Physiology
(Excitation-contraction coupling of smooth muscles)

1978 Assistant, Kyushu University, Faculty of Medicine, Department of Pharmacology
(Electrophysiological studies of arterial smooth muscle function)

1980~1982 Research Fellow, Department of Pharmacology, St. George's Hospital Medical
School, University of London, UK (Patch-clamp studies of smooth muscle cells)

1987 Lecturer, Kyushu University, Faculty of Medicine, Department of Pharmacology
(Patch-clamp studies of potassium and calcium channels on vascular smooth muscle cells)

1991 Visiting Researcher, Institute of Applied Physiology, University of Cologne, Germany

1994 Professor, Fukuoka Dental College, Department of Dental Pharmacology (Ion channel
function and its pharmacological modification)

2009 Rector, Fukuoka Dental College

Transfer of Scientific Knowledge into the Dental Curriculum

University of British Columbia
Dean, School of Dentistry Charles Shuler, DMD PhD

The approach of a scientist to examine a research question involves the development of a specific research proposal. Clinical faculty members often comment that they are unfamiliar with the scientific method and consequently are not engaged in research projects. Yet, Clinical Care follows a systematic series of steps that are in fact quite closely related to the features of a research protocol. A patient's Chief Complaint presents a situation that naturally leads to a question, "Why did this happen?" This is equivalent to the generation of a research question that scientists investigate in their own research. Clinical and research questions lead to new knowledge, either through in depth analysis or scientific investigation that are often directly relevant to applications resulting in improved patient care. If the thinking of a skilled clinician and a basic scientist follow very similar pathways, how can new scientific knowledge advance patient care? Understanding of disease mechanisms is advancing rapidly and it is becoming clear that all patients have both genetic and environmental risk factors and that there exists a gene-environment relationship in the causation of human disease. The basic research that has generated these findings represents an important foundation on which clinicians can build to continually improve their approaches to patient treatment. However, it is critical that skilled clinicians are able to obtain and evaluate new scientific advances and appropriately integrate them into their practices. This necessitates in dental students an awareness of the role of research in the profession and the development of skills to find and assess information. Rather than simply learning what is known at the time of their dental education, students must be prepared to continually shape their patient care on the best available evidence that has been produced by rigorous scientific studies. In their 40 year careers in oral health care dentists will see many advances in scientific understanding. Are our graduates prepared to use them to the best benefit of their patients?

Charles Shuler, DMD PhD

Dr. Shuler is the Dean of the Faculty of Dentistry of the University of British Columbia. Prior to being appointed at UBC he was a faculty member at the University of Southern California for 18 years. At USC he served as the Director of the University of Southern California Center for Craniofacial Molecular Biology holding an endowed chair position as the George and Mary Lou Boone Professor of Craniofacial Molecular Biology. He also served as the Director of the Graduate Program in Craniofacial Biology and the Associate Dean for Student and Academic Affairs at the USC School of Dentistry. Dr. Shuler received his B.S. in Biochemistry from the University of Wisconsin, his D.M.D. from Harvard School of Dental Medicine, his Ph.D. in Pathology from the University of Chicago and his Oral Pathology education at the University of Minnesota and the Royal Dental College Copenhagen Denmark. He has been active in

assessing and managing clinical oral pathology patients with soft and hard tissue lesions. He maintains an active research program funded by the United States National Institute for Dental and Craniofacial Research that is focused on evaluating the molecular regulation of the secondary palate to better understand the etiology of cleft palate birth defects.

Toward patient-centered practice

Dean, School of Dentistry, Kyung Hee University

Dr Joon Bong Park, DMD, PhD

Birth of modern medicine in Korea dates back to April 14, 1885, when the first modern government hospital for common people to practice western medicine, “Gwanhyewon (廣惠院, House of Widespread Relief),” was established. Modern dental practice was later introduced in 1915, when Dr. William J. Scheifley founded the Department of Dentistry in the Severance Union College. It took the first step in a new era of dentistry in Korea. The first educational institution in Korea offering a 3-year program, was founded in 1922, raised to the status of College requiring 6 years to complete the dental program. In 2005, some of the dental colleges changed their academic system into a 4-year professional school system, for which candidates must hold Bachelor’s degree to apply.

Kyung Hee University was founded in 1949 and Kyung Hee University College of Dentistry in 1967, which is the second oldest, but the first private dental college in Korea. It began with a 6-year dental program and from 2005 started offering a 4-year professional dental program, but have been decided to return to the traditional 6-year dental college program, for which high school graduates can directly apply. The program will begin from 2015.

Each year the school enrolls 80 freshmen. During the last 45 years, some 3,000 graduates have accomplished their academic career in the school. A total of 58 full faculty members constitute 8 basic science departments (18 professors) and 8 clinical departments (40 professors).

In 1971, the Dental Hospital affiliated to the Kyung Hee Medical Center celebrated its opening with 7 departments: Conservative Dentistry, Prosthodontics, Oral and Maxillofacial Surgery, Periodontology, Orthodontics, Pediatric Dentistry, and Oral and Maxillofacial Radiology. Together with the facilities of Preliminary Examination Clinic, Dental Laboratory and Administration Office, the Dental Hospital launched its clinical training programs. In affiliation with the Dental Hospital and the school, the Institute of Oral Biology was established in 1989. The second affiliated hospital, the Gangdong Dental Hospital at Gangdong was opened with a dental clinic in 2006.

Curriculum of the school is composed of 4 different levels of education: the first one is “Learn by head” level, at which students obtain knowledge from didactic and laboratory classes and prepare for evidence-based learning process; at the next “Learn by eye” level, students acquire clinical knowledge and techniques and communication skill required for dental practice from senior dentists (professors and dean’s faculty members) through observation and chairside instruction, adapting to a new environment of dental settings; next, students train themselves to be a dental practitioner through “Learn by hand” experience. They treat patients under the guidance of senior dentists; finally, students should be able to reach the level of “Learn by heart,” which is the fundamental principle of health care.

The oral cavity has different types of soft tissues such as mucosae, gingiva and tongue. Maxillofacial prism have unique biomechanical complex such as like mastication, swallowing, phonetics, facial expressions, salivation and esthetic system. Different oral soft tissues show different responses to initial treatment and the responses of the same soft tissue are different from an individual to another. Therefore, comprehensive understanding and critical evaluation of each patient’s hard and soft tissue are crucial for successful treatment.

While making diagnosis, planning treatment and performing treatment, each step of the procedures requires dentists’ decision. Dentists have to rely solely on themselves in a making-decision process. This leads to the agreement that emphasis on social and humanities education, which helps students establish the value of

patient-centered dental practice.

In student education, it should be emphasized that maxillofacial prism composed not only teeth but also many different soft tissue.

Joon Bong Park (朴 準奉) DMD

Present office position : Professor, Dean, Sch. of Dent, Kyung Hee Univ.

< Education >

1971, 03 - 1977, 02 : Graduate, Kyung Hee University, Dental College

1977, 03 - 1980, 02 : Kyung Hee Medical Hospital, Intern and residentship. Dept of Peirodontics

1983, 03 - 1986, 02 : Division of Dent., Graduate School, Kyung Hee Univ. (PhD)

< Professional trained and experience of appointment >

1980, 04 - 1983, 04 : Obligatory Service , Dept. of Dentistry

1983, 05 - 1993, 08 : Kyungpook Univ., Assoc. Prof. & Chairperson, Dept. of Perio.

1986, 09 - 1987, 09 : UCLA, Sch of Dent., Visiting scholar

1990, 01 - 1990, 02 : Osaka University, Faculty of Dentistry, Visiting researcher

1991, 08 - 1992, 08 : SUNY at Buffalo, Sch of Dent., Visiting faculty

1993, 09 - Present : Kyung Hee Univ., Dept. of Perio., Professor

1994, 10 - 1994,12 : Asahi Univ., Faculty of Dentistry, Visiting researcher

2005, 10 - 2009,01 : Chairman, Kyung Hee University Dental Hospital at Gandong

2009, 01 – Present : Dean, Sch. of Dent., Kyung Hee Univ.

< Membership of Scientific Society >

Korean Academy of Periodontology, President (Former)

Korean Periodontal Research Foundation, Director (Present)

Korean Foundation of Oral and Maxillary Implant, Inspector (Present)

Korean Academy of Geriatric Dentistry, President (Present)

Korean Society of Dean on Dental school, President (Present)

NOVEL ORAL MEDICINE

Dr. Tun Ngwe, B.D.S., M.D.Sc.

Lecturer, Department of Oral and Maxillofacial Surgery,
University of Dental Medicine, Yangon, Myanmar

In the colonial time there was no dental school in Myanmar. Dental care was provided by quack practitioners and most of the dental ailments were treated by traditional medicine. Sixteen years after the Independence (1948) revolutionary military government founded the first dental school in Myanmar, under the aids of British Commonwealth Colombo Plan. The dental school was named as College of Dental Medicine, affiliated to the Institute of Medicine I, and the dental course was made as British system, recommended by Sir Robert Bradlaw, the President of British Dental Council and students were taught by British Experts. Myanmar dental school was recognized by British Dental Council, and since then, the medical personnel taught medical subjects in the medical institute. Dental subjects were taught by dental personnel in dental college, located in the compound of Yangon General Hospital.

The College of Dental Medicine was upgraded to Institute of Dental Medicine in 1974, and to University of Dental Medicine in 1997. The 50 bedded Teaching Hospital was founded at the campus of University of Dental Medicine, Yangon, in this year. Simultaneously, University of Dental Medicine and Teaching Hospital, Mandalay was also established in 1999. The name of College of Dental Medicine was reflected that the dentistry was the branch of medicine. The aim of dental education in Myanmar has been integrated with medicine since the beginning.

The 5 years undergraduate courses include of two years basic sciences, one preclinical year and two clinical years. The 6 months period of house student pass with skill, knowledge and attitude towards the subjects. The post graduate courses are opened only in 1992. The Postgraduate courses include of Diploma 1 years course, Master 2 years course and Doctorate 3 years course. The general medicine and general surgery are included in both undergraduate and post graduate courses so as to keep abreast of dentistry along with medicine. The hospital based medical teaching are intimately integrated to the curriculum. The Doctorate degree specialized on Oral and Maxillofacial Surgery which is the only course conducted by University of Medicine where the candidate are either the Master degree holder of the Dentistry or General Surgery and at least two years surgical experience under the specialist .

Recent total population of Myanmar is about 60 millions and the annual growth rate of population is 2%. According to the country needs, the annual intake of dental students was increased from 60 (1964 to 2000) to over 300 (2000 up to now). Now a day along with increased global population, increased longevity, improvement in standard of living and social environment, and life style have significantly changed the profile of oral diseases and patients' demands for dentistry. Majority of aged people are medically compromised. Rapidly aging population suffering from an increased incidence of medical and physical disabilities is requiring improved access to medical services. Biomedical knowledge is essential for dentists to cooperate and compete with other health care professionals. Dentists should be educated of Pathophysiology, Pharmacology and General Medicine in more details. They

should have ability to treat medically compromised patients safely and effectively. With the advancement of the medical specialty, the organ transplanted cases and prosthesis implanted cases are also increasing in number. They need simultaneous special attention towards the medical care while taking treatment for oral conditions.

Signs and symptoms of many potentially life threatening diseases appear in the mouth first and they are most treatable. Oral health is an integral part of the total health. Awareness of the association between systemic and dental diseases among dental surgeons as well as medical doctors is important. Co-operation between the dental surgeon and medical doctor become the prime important in treating the patient. Treatment focus only on dental conditions won't solve the medical conditions and vice versa.

In Myanmar, the University of Dental Medicine and Teaching Hospital are situated far away from General Hospital. No other specialties are included in the campus and furthermore, almost all the duty officers working in this Hospital are dentists. The patients have to be referred for medical consultation to Sanpya General Hospital which is the nearest hospital about 3 kilometers far from University of Dental Medicine, Yangon. Therefore, these dentists should have adequate broad medical knowledge for caring the patients.

Dentists are being challenged with the oral health care and dental emergency in the situation like natural disasters. Natural disasters common in Myanmar are floods, cyclones, storms, earthquakes, landslides and urban fires. Myanmar dentists should have broad general medical knowledge to consider the disaster related situations. These health problems lead to the burden on Myanmar dentists who have no efficiency in the biomedical knowledge.

Integration of medical and dental education is necessary to improve healthcare outcomes, costs, and overall public health. Novel oral medicine should include not only dental education but also medical education. Integration of dental education and medical education is the main theme. Novel Oral Medicine can assist to promote the efficiency and quality of dental surgeons. The proper expansion and application of the integrated curriculum will bring a brighter role to the future of the dentists.

略歷

Qualification	B.D.S (1993), M.D.Sc (YGN) (2001)
Designation	Lecturer, Department of Oral and Maxillofacial Surgery, University of Dental Medicine ,Yangon, Myanmar
Post Grad Training	Doctorate student (2 nd Year) doing for Dr. Med Sc at University of Medicine I Yangon
Training	Training of oral and maxillofacial surgery, Chulalongkorn University, Bangkok, Thailand (1.8.2011) to (30.8.2011)
Member	Member of Myanmar Dental Association(MDA), IADR
Field of interest	Local flaps used in maxillofacial region, cleft surgery, surgical oncology of maxillofacial region
Thesis doing	Submental Island Flap in Oral Cancer Soft Tissue Reconstruction
Working Experience	
6.5.95 - 17.8.98	Dental Surgeon Maupin Urban health center, Ayeyarwaddy Division
18.8.98 - 23.8.99	Dental Surgeon Wabarki hospital, Yangon
24.8.99 - 25.8.03	Clinical Demonstrator Department of Oral and Maxillofacial Surgery, University of Dental Medicine ,Yangon
26.8.03 - 21.5.05	Assistant lecturer Department of Oral and Maxillofacial Surgery, University of Dental Medicine ,Mandalay
24.5.05 - 9.4.09	Assistant lecturer Department of Oral and Maxillofacial Surgery, University of Dental Medicine ,Yangon
9.4.09 - now	Lecturer Department of Oral and Maxillofacial Surgery, University of Dental Medicine ,Yangon

特別講演

Development and Maintenance of Dentogingival Junction

Seong-Suk Jue, DDS, PhD

Department of Oral Anatomy and Developmental Biology, School of Dentistry, Kyung Hee University

Dentogingival junction including junctional epithelium is unique epithelial cell layer facing both to the gingival connective tissue and mature enamel surface via basal lamina, and has very limited free surface areas open toward the gingival sulcus. Ample evidence indicate that the cells comprising the junctional epithelium of functional teeth are highly mobile and are constantly replaced by the new ones arising from the proliferating cells of the basal layer facing the connective tissue but not from those facing the enamel surface. It is thus explained that the cells of junctional epithelium attaching to the enamel surface are non-proliferating cells although these cells retain cytological features typical of basal epithelial cells.

According to the experiments using immunohistochemistry, junctional epithelial cells attaching to the enamel surface might have proliferation potential, suggesting a new view of cell kinetics at the dento-gingival junction in young and adult rat molars.”

EMPLOYMENT HISTORY

2003.03. ~ Assistant Professor, School of Dentistry, Kyung Hee University
2001.03. ~ 2003.02. Postdoctoral Fellow, Dental School, University of Maryland, USA
1997.03. ~ 2001.02. Lecturer, School of Dentistry, Kyung Hee University
1996.03. ~ 1997.02. Research Scholar, Dental School, Ohu University, Japan
1995.03. ~ 1996.02. Lecturer, School of Dentistry, Kyung Hee University
1992.03. ~ 1995.02. Teacher Assistant, School of Dentistry, Kyung Hee University

EDUCATION

2001.03. ~ 2003.02. Postdoctoral Fellow, Dental School, University of Maryland, USA
1994.09. ~ 1997.08. Graduate School of Dentistry, Kyung Hee University (Oral Anatomy / Ph.D.)
1992.09. ~ 1994.08. Graduate School of Dentistry, Kyung Hee University (Oral Anatomy / M.S.D.)
1986.03. ~ 1992.02. School of Dentistry, Kyung Hee University (D.M.D.)