Symposium

Role of Oral and Maxillofacial Radiology in Clinical Dentistry
—Current Status and Future Perspective in Asia—

Yat-Hang Yan D.D.S., M.S.

Department of Oral Diagnosis, School of Dentistry, Kaohsiung Medical College, Kaohsiung, Taiwan, R.O.C.

Key Words: Oral radiology class, Oral diagnostic section, Oral radiology in Taiwan

In Taiwan, seven dental schools, three national and four private schools have formal certified dental programs. Among the undergraduate courses, oral and maxillofacial radiology is a compulsory subject for all the dental students. In clinical dentistry, oral radiology may not be an independent department, depending on the different policies of each hospital. For example, the oral radiology section is part of the oral diagnostic department in the Kaohsiung Medical College Hospital. The main role of the oral diagnostic department is to make the diagnosis and to plan the treatment for all new patients. The names of the oral radiology departments are different in each hospital but they possess similar functions, including the basic intra-oral and extra-oral radiographic examinations. Modern new image machines such as Digora (Soredex) and PM 2002 CC (Planmeca) are also available in our department. Some special radiographic examinations including CT, MRI, angiography and scintigraphy can be ordered and performed by the general radiology department in our hospital. In the future, we are planning to use a computer to scan the images and filling. Modern transmission of radiographic images is also our planned. This will help the related specialists to have phone discussions from different hospitals, even international consultations.

The population of Taiwan is about 21 million. Seven dental schools including three national and four private schools were established in Taiwan. Three national and one private school of these seven dental schools are situated in Taipei city. Two private schools are located in the middle part of Taiwan. Kaohsiung Medical College is the only private school located in the southern part of Taiwan of Kaohsiung city. All the dental schools have formal dental programs with bachelor degree. During the 6-year undergraduate dental course, oral and maxillofacial radiology is a compulsory
class for all the dental students. Lecture and experiment are usually arranged in the 3rd or 4th academic year depending on the policy of each dental school. During the clerkship (5th) or the internship (6th) year, all dental students have chances to take radiographs, and to diagnose the patients. In total, 400 students graduate from these seven dental schools each year. Six dental schools also have the postgraduate master courses. It requires 2-4 years to receive a master degree in dental science. Only four dental schools offer a 3-5 year Ph. D. program.

Nowadays in Taiwan, the oral radiology department may be an independent department. It relies on different policies of each hospital. For example, oral radiology section is an independent section in the National Taiwan University Hospital. The oral diagnostic department of the Kaohsiung Medical College Hospital is divided into 3 sections, it includes oral radiology section, oral pathology section and oral medicine section. The daily routine role of our oral diagnostic department is to made the clinical diagnoses, the treatment plans for all new patients and refer them to the various departments for further treatments.

The oral radiology section offers different kinds of radiographic examinations including the common intra-oral (periapical, bitewing and occlusal) and extra-oral (panoramic and cephalometric) radiographs. Some special extra-oral radiographic examinations including submental vertex, modified Town’s, transcranial and transpharyngeal TMJ views can also be performed. Modern digital image systems such as Digora (Soredex) for intra-oral radiograph and PM 2002 CC (Planmeca) for extraoral radiograph (include tomographs) are also available in our department. Other specialized radiographic examinations such as CT, MRI, angiography and scintigraphy can be performed in the general radiology department of our hospital.

The oral pathology section prepares the microscopic slides from the surgical specimens and determines the pathological diagnoses. The oral medicine section deals with some oral mucosa diseases.

There are approximately 8,000 dentists working in our country and about 60% of them have their own dental clinics. Almost all dental clinics have their own periapical X-ray machine. Recently, many well-established personal dental clinics possess their own panoramic and cephalometric machine, even tomographic X-ray equipment. Also, modern digital image systems (for instance Digora, RVG) is becoming available in some dental clinics.

An academy of oral radiology has not yet been established in Taiwan. The oral pathology academy takes part of the function of oral radiology. The oral pathology academy is subdivided into the clinical pathology and the surgical pathology sections. The clinical pathology section includes oral radiology, oral diagnosis and oral medicine. The surgical pathology section is specific in the microscopic and laboratory pathologic studies. The president of this academy changes every 3 years. The annual meeting is held in different cities by different dental schools. Famous specialists in particular fields are invited as guest speakers. Continuing education in oral radiology is also a part of the annual congress.

Four-year resident training programs have already been set up by the academy. Those who finish the training program and