F1 The Diversity of Dental Patterns in the Orthopantomography and Significance in Human Identification

Kyoung-Jin Shin, DDS, PhD, Yonsei University, Department of Forensic Medicine, College of Medicine, Human Identification Research Institute, Seoul, 120-752, Korea; Sang-Seob Lee, DDS, MS, and Jong-Hoon Choi, DDS, PhD, Yonsei University, Department of Oral Diagnosis and Oral Medicine, College of Dentistry, Human Identification Research Institute, Seoul, 120-752, Korea; Chang-Lyuk Yoon, DDS, PhD, Chosun University, Department of Oral Medicine and Forensic Odontology, College of Dentistry, Human Identification Research Institute, Yonsei University, Gwangju, 501-759, Korea; Chong-Youl Kim, DDS, PhD, Yonsei University, Department of Oral Diagnosis and Oral Medicine, College of Dentistry, Human Identification Research Institute, Seoul, 120-752, Korea*

After attending this presentation, attendees will understand the value of orthopantomography in human identification.

The primary aim of this study is to evaluate the utility of orthopantomography for human identification. Three hundred orthopantomograms were randomly selected from those kept in the dental hospital of Yonsei university in Seoul. The dental patterns observed in the orthopantomograms were converted into eight codes and its diversity was calculated.

The diversity of dental patterns in orthopantomograms was 99.58% in a complete dentition. The diversity in the mandible (98.99%) was slightly higher value than that in the maxilla (97.92%). The diversity of maxillary and mandibular molars ranged from 92.02% to 96.09%. It is established that orthopantomography is valuable in personal identification not only when a complete dentition is present, but also when only posterior teeth remain. Therefore, the dental patterns in orthopantomography are found to be very unique and an excellent source for forensic identification.

Orthopantomography, Human Identification, Diversity of Dental Patterns

 ** Presenting Author*