

Morphological Appearance of Condylar Head in Mixed Dentition Period (Evaluated from Panoramic Radiograph)

Lydia Tanu¹, Hendra Polii², Dian Lesmana³

¹Faculty of Dentistry, Maranatha Christian University, Bandung, Indonesia

²Department of Dental Radiology, Faculty of Dentistry, Maranatha Christian University, Bandung, Indonesia

³Department of Physiology, Faculty of Dentistry, Maranatha Christian University, Bandung, Indonesia

ABSTRACT

Background: During mixed dentition period, the growth and development process of dentocraniofacial complex occurs, with temporomandibular joint as one of its centers of growth. The condition of temporomandibular joint can be seen from its condylar head shape; therefore, it is essential to understand the normal morphology of condylar head during mixed dentition period. **Objective:** This research aims to view the general morphology of condylar head during mixed dentition period. **Method:** Samples of panoramic radiographs were collected from Maranatha Dental Hospital, Bandung, Indonesia. It consists of 70 male and 70 female subjects, divided into three groups according to their phase of mixed dentition period. Shape of subjects' condylar heads was determined by analyzing and comparing the tracing results of condyle in panoramic radiograph. **Result:** Study showed in first transitional period of mixed dentition, condylar head shape is dominated by round, as growth and development go on, the domination of condylar head shape is changed into convex on second transitional period. **Conclusion:** Mostly condylar head shape morphology during mixed dentition period is round-headed in first transitional and inter-transitional period, and convex-headed in second transitional period.

Keywords: mixed dentition period, temporomandibular joint, mandibular condyle, panoramic radiograph)
