

DIMENSI ANTEROPOSTERIOR WAJAH BERDASARKAN MATURASI TULANG VERTEBRA SERVIKALIS PADA ANAK PERIODE GIGI BERCAMPUR *INTERMEDIATE* DAN PERMANEN AWAL

INTISARI

Tulang vertebra servikalis merupakan salah satu indikator maturasi tulang kraniofasial. *Timing* maturasi tulang kraniofasial menentukan keberhasilan *early orthodontic treatment*. Penelitian ini bertujuan untuk mengetahui dimensi anteroposterior wajah berdasarkan maturasi tulang vertebra servikalis pada anak periode gigi bercampur *intermediate* dan permanen awal.

Penelitian observasional analitik dengan rancangan *cross sectional* dilakukan terhadap siswa Madrasah Ibtidaiyah di Kecamatan Depok Kabupaten Sleman, Yogyakarta. Subjek terdiri atas 22 anak laki-laki dan 22 perempuan berusia 8-11 tahun. Analisis anteroposterior wajah dilakukan pada sefalometri lateral, meliputi jarak Sella tursica-Nasion (S-N) sebagai parameter basis kranium anterior, jarak Spina Nasalis Posterior (PNS) ke Spina Nasalis Anterior (ANS) parameter maksila dan Gonion-Menton (Go-Me) dan Condylion-Gnation (Co-Gn) parameter mandibula. Penilaian CVMI (*Cervical Vertebrae Maturation Indices*) ditentukan dengan metode Hassel dan Farman. Data dianalisis dengan ANOVA Satu Arah program SPSS 24 *for windows*.

Nilai rerata dimensi S-N, PNS-ANS, Go-Me dan Co-Gn secara umum lebih tinggi pada anak laki-laki dibandingkan anak perempuan, namun hanya dimensi maksila dan mandibula menunjukkan perbedaan bermakna ($p < 0,05$), sedangkan dimensi S-N tidak terdapat perbedaan bermakna ($p > 0,05$). Pada interval CVMI 3 dan CVMI 4, dimensi Go-Me dan Co-Gn menunjukkan perbedaan bermakna ($p < 0,05$) baik pada anak laki-laki maupun perempuan. Disimpulkan bahwa terdapat perbedaan dimensi maksila dan mandibula berdasarkan maturasi tulang vertebra servikalis pada anak periode gigi bercampur *intermediate* dan permanen awal.

Kata kunci: dimensi anteroposterior wajah, maturasi tulang vertebra servikalis, periode gigi bercampur *intermediate*, gigi permanen awal

**THE ANTEROPOSTERIOR FACIAL DIMENSION IN CERVICAL
VERTEBRAL MATURATION STAGES ON THE PERIOD OF
INTERMEDIATE MIXED AND EARLY PERMANENT
DENTITION OF CHILDREN**

ABSTRACT

Cervical vertebrae is one of indicators for craniofacial bones maturation. Timing of craniofacial bone maturation determined achievement of orthodontic early treatment. This study aim was to determine the anteroposterior facial dimensions in cervical vertebral maturation stages on the period of intermediate mixed and early permanent dentition of children.

An analytic observational study with cross sectional design was conducted on the students of Madrasah Ibtidaiyah in Depok district, Sleman regency, Yogyakarta. Subjects were 22 boys and 22 girls in the aged 8-11 years. The facial anteroposterior analysis was performed on the lateral cephalometry, for measuring the distance of Sella turcica to Nasion (S-N) representing the anterior cranial base, Posterior Nasal Spine to Anterior Nasal Spine (PNS-ANS) representing the maxilla and Gonion-Menton (Go-Me) and Condylion-Gnathion (Co-Gn) represents the mandible. Assessment of CVMI (Cervical Vertebrae Maturation Indices) was decided by the Hassel and Farman methods. Data were analyzed by One Way ANOVA SPSS program 24 for windows.

The mean value of S-N, PNS-ANS, Go-Me and Co-Gn dimensions, generally were higher in boys than girls. However, only dimensions of maxillary and mandibular were showed significant different ($p < 0.05$), while the S-N dimension was not significantly different ($p > 0.05$). At the interval of CVMI 3 and CVMI 4, the Go-Me and Co-Gn dimension were showed significant difference ($p < 0.05$) both in boys and girls. The conclusion is there were different of maxillary and mandibular dimensions in cervical vertebral maturation stages on the period of intermediate mixed and early permanent dentition of children.

Keywords: anteroposterior facial dimension, cervical vertebral maturation, intermediate mixed dentition, early permanent dentition.