HUBUNGAN MATURASI TULANG VERTEBRA SERVIKALIS DAN MATURASI GIGI PADA ANAK USIA 8-11 TAHUN

INTISARI

Maturasi tulang dan maturasi gigi penting dipertimbangkan dalam perawatan ortodontik awal. Maturasi tulang bisa dinilai berdasarkan bentuk tulang vertebra servikalis, sedangkan maturasi gigi berdasarkan kalsifikasi gigi. Tujuan penelitian ini untuk mengetahui hubungan antara maturasi tulang vertebra servikalis dan maturasi gigi pada periode gigi bercampur.

Penelitian observasional analitik dilakukan pada 56 anak, terdiri atas 27 anak laki-laki dan 29 anak perempuan berusia 8-11 tahun. Subjek penelitian merupakan siswa Madrasah Ibtidaiyah di Kecamatan Depok Kabupaten Sleman dengan kriteria dalam periode gigi bercampur *intermediate* dan permanen awal serta belum pernah dilakukan pencabutan gigi permanen. Pengambilan foto sefalometri lateral dan panoramik dilakukan di Instalasi Radiologi RSGM UGM Yogyakarta pada bulan Juli 2019 sampai Januari 2020. Penilaian CVMI (*Cervical Vertebrae Maturation Indices*) dilakukan pada sefalogram lateral menggunakan metode Hassel dan Farman, sedangkan penilaian maturasi gigi pada ronsen panoramik menggunakan metode Demirjian. Subjek dibagi menjadi 3 kelompok setelah penilaian CVMI, yaitu CVMI 2, 3 dan 4. Data dianalisis dengan Uji korelasi Spearman.

Hasil penelitian menunjukkan bahwa rerata skor maturasi gigi subjek perempuan lebih tinggi dibandingkan dengan subjek laki-laki. Skor maturasi gigi pada CVMI 4 lebih tinggi dibandingkan dengan CVMI 3 dan CVMI 2 baik pada subjek laki-laki maupun perempuan. Korelasi antara CVMI dan maturasi gigi pada laki-laki sebesar 0,68 dan perempuan sebesar 0,57. Kesimpulan penelitian adalah terdapat hubungan positif antara maturasi tulang vertebra servikalis dan maturasi gigi pada anak laki-laki dan perempuan usia 8-11 tahun.

Kata kunci: maturasi tulang vertebra servikalis, maturasi gigi, anak usia 8-11 tahun

CORRELATION BETWEEN CERVICAL VERTEBRAE MATURATION AND DENTAL MATURATION ON CHILDREN AGE 8-11 YEARS

ABSTRACT

Skeletal maturation and dental maturation are important to consideration in early orthodontic treatment. Skeletal maturation can be assessed based on the shape of the cervical vertebrae, while dental maturation is based on tooth calcification. The purpose of this study was to determine the relationship between cervical vertebral maturation and dental maturation in the mixed dentition period.

An analytic observational study was conducted on 56 children, consisting of 27 boys and 29 girls aged 8-11 years. The research subjects were elementary school students in Depok District, Sleman Regency with the criteria of being in the intermediate mixed dentition to early permanent dentition period and never having the permanent tooth extracted. Lateral cephalometric and panoramic photos were taken at the Radiology Installation of RSGM UGM Yogyakarta from July 2019 to January 2020. The CVMI (Cervical Vertebrae Maturation Indices) assessment was carried out on lateral cephalograms using the Hassel and Farman method, while the dental maturation assessment on panoramic x-rays used the Demirjian method. Subjects were divided into 3 groups after the CVMI assessment, namely CVMI 2, 3, and 4. Data were analyzed by Spearman's correlation test.

The results showed that the mean dental maturation score of female subjects was higher than that of male subjects. Dental maturation score at CVMI 4 was higher than that at CVMI 3 and CVMI 2 in both male and female subjects. Correlation between CVMI and dental maturation in males is 0.68 and in females is 0.57. The conclusion of the study was that there was a positive relationship between cervical vertebral maturation and dental maturation in boys and girls aged 8-11 years.

Keywords: cervical vertebral maturation, dental maturation, children age 8-11 years