

# Korelasi antara Usia Dental berdasarkan Maturasi Gigi dengan Usia Skeletal berdasarkan Maturasi Tulang Servikal = Correlation between Dental Age based on Tooth Maturation and Skeletal Age based on Cervical Vertebral Maturation

Lathana Larissa Adrine, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=9999920541092&lokasi=lokal>

---

## Abstrak

Latar Belakang: Penentuan usia dental dan skeletal sangat penting dalam perawatan ortodonti. Salah satu metode yang dapat digunakan adalah metode Demirjian dan Baccetti. Penelitian sebelumnya menunjukkan bahwa kalsifikasi gigi dapat menjadi salah satu evaluasi usia skeletal. Tujuan: Mengetahui korelasi antara usia dental berdasarkan maturasi gigi dengan usia skeletal berdasarkan maturasi tulang servikal. Metode: Penelitian ini menggunakan metode potong lintang dengan 96 sampel berupa radiograf panoramik dan sefalometri lateral dari satu pasien yang memenuhi kriteria inklusi. Metode Demirjian dan metode Baccetti digunakan untuk mengevaluasi usia dental dan skeletal. Uji korelasi Spearman dilakukan untuk mengetahui korelasi antara usia dental dan skeletal. Hasil: Terdapat korelasi sangat kuat antara skor maturasi gigi dengan maturasi tulang servikal pada laki-laki ( $r = 0,858$ ,  $p = 0,000$ ) dan perempuan ( $r = 0,807$ ,  $p = 0,000$ ). Korelasi paling kuat pada laki-laki terlihat pada kalsifikasi gigi molar 2 ( $r = 0,850$ ,  $p = 0,000$ ), sementara pada perempuan terlihat pada kalsifikasi gigi kaninus ( $r = 0,805$ ,  $p = 0,000$ ). Kesimpulan: Korelasi sangat kuat antara usia dental berdasarkan maturasi gigi dan usia skeletal berdasarkan maturasi tulang servikal menunjukkan potensi penggunaan usia dental untuk memperkirakan usia skeletal. Namun, terdapat variasi kekuatan korelasi antar kalsifikasi gigi dengan usia skeletal.

.....Background: Determining dental and skeletal age is critical in orthodontic treatment. The Demirjian and Baccetti method is one of various approaches to evaluate dental and skeletal age. Related research indicates that tooth calcification can serve as a primary diagnostic tool to determine skeletal age. Objective: To assess the correlation between dental age based on tooth maturation and skeletal age based on cervical vertebrae maturation. Methods: This study involved 96 panoramic and lateral cephalometric radiographs from patients who met inclusion criteria. The Demirjian method was used to assess dental age, while the Baccetti method was used for skeletal age, spearman correlation tests were conducted to evaluate the correlation. Results: A strong correlation was found between tooth maturation scores and cervical vertebrae maturation in males ( $r = 0,858$ ,  $p = 0,000$ ) and females ( $r = 0,807$ ,  $p = 0,000$ ). In males, the strongest correlation occurred in the second molar ( $r = 0,850$ ,  $p = 0,000$ ), while in females it occurred in the canine ( $r = 0,805$ ,  $p = 0,000$ ).

Conclusion: Dental age based on tooth maturation strongly correlates with skeletal age based on cervical vertebral maturation, suggesting its potential use to estimate skeletal age, but variability exists among tooth types.