Reliabilitas submentovertex dalam pengukuran mandibula berdasarkan perbandingan ukuran radiogram terhadap ukuran tulang asli studi kuantitatif pada tulang tengkorak kering manusia = Reliability of submentovertex image compared to direct mandible measurements study in dried human skull

Siagian, Minarma, author

Abstrak

[ABSTRAK
 Berbagai macam panduan rekonstruksi mandibula telah dikembangkan untuk mengurangi angka komplikasi Golden standard panduan rekonstruksi mandibula saat ini adalah pemeriksaan radiologi 3 dimensi yang memberikan ukuran sesuai dengan ukuran aslinya namun proyeksi submentovertex memiliki kelebihan berupa efektifitas dalam menampilkan keseluruhan struktur kraniomaksilofasial dalam satu film sehingga menjadi lebih singkat pengerjaannya dan ekonomis Tujuan Penelitian ini bertujuan melihat reliabilitas ronsen submentovertex dengan membandingkan hasil pengukuran menggunakan kaliper mitutuyo langsung pada tulang mandibula dengan hasil pengukuran mandibula menggunakan PACS pada ronsen submentovertex Material dan metodePenelitian ini menggunakan 50 tulang mandibula yang dipasangkan dengan tulang kranium dan tulang kalvaria Penanda logam bentuk bulat diameter 1mm dipasang pada titik Pogonion Gonion kiri dan kanan Lateral Procesus Condylaris kiri dan kanan Parameter yang diukur adalah jarak titik Gonion kiri ke Gonion kanan jarak titik Lateral Procesus Condylaris kiri ke Lateral Procesus Condylaris kiri besar sudut yang dibentuk oleh titik Gonion kanan Pogonion Gonion kiri dan besar sudut yang dibentuk oleh titik Lateral Procesus Condylaris kiri Pogonion Lateral Procesus Condylaris kanan Tulang tengkorak kemudian dironsen submentovertex Pengukuran manual dilakukan menggunakan kaliper mitutuyo langsung pada tulang mandibula sedangkan pengukuran ronsen Submentovertex menggunakan program Picture Archiving Computerised System Pengukuran dilakukan tiga kali dengan jarak waktu pengukuran 24 jam oleh satu orang Hasil pengukuran manual dan submentovertex kemudian dibandingkan dengan menggunakan uji statistik t berpasangan dengan tingkat ketelitian 95 p0 05 yang berarti hasil pengukuran manual dan submentovertex berbeda bermakna Kesimpulan Ukuran tulang mandibula hasil pengukuran menggunakan kaliper dengan Submentovertex berbeda bermakna Hasil pengukuran angular dan linear pada submentovertex lebih besar daripada hasil pengukuran manual pada tulang mandibula ABSTRACT IntroductionAblative tumor surgery cause discontinuity of the mandible Various guidances had been introduced in mandible reconstruction to reduce complication rate Three dimensional computed assisted is the golden standard Plain radiology such as submentovertex has some advantages cost efective and low radiation dose Every guidance must be reliable Objective The purpose of this study is to examine the reliabity of submentovertex image compared to golden standard of direct mandible measurement using caliper Material and MethodThe sample of this study were 50 dried human mandibles paired with os calvaria and os cranium 1mm diameter of metal marker were placed in Pogonion left and right Gonion right and left Lateral Procesus Condylaris Linear measurements were left Gonion ndash right Gonion right Lateral Procesus Condylaris ndash left Lateral Procesus Condylaris Angular measurements were right Gonion ndash Pogonion ndash left Gonion and right Lateral Procesus Condylaris ndash Pogonion ndash left Lateral Procesus Condylaris Direct measurement on the mandible was

done by using caliper Mitutuyo and Picture Archiving Computerised System for measuring the mandible on submentovertex image One observer measured the mandible three times 24 hours range of time for each measurements The result between direct measurement and submentovertex image were compared and tested using paired t test p0 05 Conclusion There were significant difference on both angular and linear measurement of the mandible between direct caliper measurement and Picture Archiving Computerised System for Submentovertex image ;IntroductionAblative tumor surgery cause discontinuity of the mandible Various guidances had been introduced in mandible reconstruction to reduce complication rate Three dimensional computed assisted is the golden standard Plain radiology such as submentovertex has some advantages cost efective and low radiation dose Every guidance must be reliable Objective The purpose of this study is to examine the reliabity of submentovertex image compared to golden standard of direct mandible measurement using caliper Material and MethodThe sample of this study were 50 dried human mandibles paired with os calvaria and os cranium 1mm diameter of metal marker were placed in Pogonion left and right Gonion right and left Lateral Procesus Condylaris Linear measurements were left Gonion ndash right Gonion right Lateral Procesus Condylaris ndash left Lateral Procesus Condylaris Angular measurements were right Gonion ndash Pogonion ndash left Gonion and right Lateral Procesus Condylaris ndash Pogonion ndash left Lateral Procesus Condylaris Direct measurement on the mandible was done by using caliper Mitutuyo and Picture Archiving Computerised System for measuring the mandible on submentovertex image One observer measured the mandible three times 24 hours range of time for each measurements The result between direct measurement and submentovertex image were compared and tested using paired t test p0 05 Conclusion There were significant difference on both angular and linear measurement of the mandible between direct caliper measurement and Picture Archiving Computerised System for Submentovertex image , IntroductionAblative tumor surgery cause discontinuity of the mandible Various guidances had been introduced in mandible reconstruction to reduce complication rate Three dimensional computed assisted is the golden standard Plain radiology such as submentovertex has some advantages cost efective and low radiation dose Every guidance must be reliable Objective The purpose of this study is to examine the reliabity of submentovertex image compared to golden standard of direct mandible measurement using caliper Material and MethodThe sample of this study were 50 dried human mandibles paired with os calvaria and os cranium 1mm diameter of metal marker were placed in Pogonion left and right Gonion right and left Lateral Procesus Condylaris Linear measurements were left Gonion ndash right Gonion right Lateral Procesus Condylaris ndash left Lateral Procesus Condylaris Angular measurements were right Gonion ndash Pogonion ndash left Gonion and right Lateral Procesus Condylaris ndash Pogonion ndash left Lateral Procesus Condylaris Direct measurement on the mandible was done by using caliper Mitutuyo and Picture Archiving Computerised System for measuring the mandible on submentovertex image One observer measured the mandible three times 24 hours range of time for each measurements The result between direct measurement and submentovertex image were compared and tested using paired t test p0 05 Conclusion There were significant difference on both angular and linear measurement of the mandible between direct caliper measurement and Picture Archiving Computerised System for Submentovertex image]