



## ABSTRAK

### MORPHOMETRI DISTAL RADIUS DI RSUP Dr. SARDJITO

#### **Pendahuluan:**

Morfometri tulang *radius distal* merupakan parameter penting yang menggambarkan stabilitas sendi *radioulnar distal*. Morfometri yang digunakan di Indonesia seringkali mengacu pada nilai referensi populasi Barat sehingga kurang representatif. Penelitian ini bertujuan membandingkan morfometri *radius distal* populasi Indonesia dengan nilai referensi OTA serta mengetahui adanya perbedaan ukuran antara jenis kelamin serta antara sisi kanan dan kiri.

#### **Metode Penelitian :**

Morfometri diukur pada foto polos pergelangan tangan 100 laki-laki dan 100 perempuan yang memenuhi syarat di RSUP dr. Sardjito Yogyakarta. Parameter yang diukur adalah *radial inclination*, *palmar tilt*, *radial height*, *ulnar variance*, dan *radiocarpal angle*. Data dicatat dalam tabel dan dikelompokkan antara jenis kelamin pria dan wanita, sisi kanan dan kiri. Analisis statistik dilakukan dengan uji *Mann-Whitney* untuk data kuantitatif dan *Chi-Square* untuk data kualitatif.

#### **Hasil :**

Pasien laki-laki memiliki rerata usia 41,41 tahun dan perempuan 46,77 tahun. Rata-rata *radial height* adalah 12.37 ( $\pm 2.25$ ) mm, *radial inclination* 23.08 ( $\pm 3.58$ )°, *palmar tilt* 13.22 ( $\pm 3.29$ ), *radiocarpal angle* 12.05 ( $\pm 1.12$ ), serta *ulnar variance* didominasi netral (55,28%). Pengukuran ini masih berada dalam rentang nilai referensi OTA. Hasil uji hipotesis tidak menunjukkan adanya perbedaan signifikan antara jenis kelamin dan antara sisi kanan-kiri pada *radial height*, *radial inclination*, *palmar tilt*, dan *ulnar variance*. Namun, *radiocarpal angle* memiliki perbedaan signifikan secara statistik antara jenis kelamin dan antara sisi kanan-kiri.

#### **Kesimpulan :**

Nilai morfometri *radius distal* di RSUP dr. Sardjito masih berada dalam rentang nilai referensi OTA. Terdapat perbedaan signifikan antara *radiocarpal angle* saat dibandingkan antara jenis kelamin dan sisi kanan-kiri, namun tidak pada parameter lain.

#### **Kata Kunci:**

Morfometri, distal radius



## ABSTRACT

### ***MORPHOMETRIC OF DISTAL RADIUS IN RSUP Dr. SARDJITO***

#### ***Introduction:***

Distal radius morphometry is an important parameter regarding the stability of distal radioulnar joint. Nowadays, the morphometry data used in Indonesian population still refer to the Western reference and hence was not representative. The purpose of this study is to compare the distal radius morphometry in Indonesian population to OTA reference and to explore any significant size difference between each gender and right-left side.

#### ***Methods :***

Morphometry of distal radius is measured from radiography of the wrists in 100 males and 100 females. to monitor blood glucose level according to RSUP dr. Sardjito Yogyakarta. Parameters measured were radial inclination, palmar tilt, radial height, ulnar variance, and radiocarpal angle. The calculated data will be presented in the table and grouped between each gender and right-left side. Statistical analysis will be done using Mann-Whitney for quantitative data and Chi-Square for qualitative data.

#### ***Results :***

The average age of male patients were 41,41 years old and females 46,77 years old. Mean of radial height was 12.37 ( $\pm 2.25$ ) mm, radial inclination 23.08 ( $\pm 3.58$ )°, palmar tilt 13.22 ( $\pm 3.29$ ), radiocarpal angle 12.05 ( $\pm 1.12$ ), and ulnar variance was predominantly neutral (55,28%). This measurement is still within the normal limit of OTA reference. We found no significant difference between gender and sides of *radial height, radial inclination, palmar tilt, and ulnar variance*. However, *radiocarpal angle* has significant difference statistically between each gender and right-left side.

#### ***Conclusions :***

Morphometry of distal radius in RSUP dr. Sardjito is still within the range of OTA reference. There is a significant difference of radiocarpal angle between gender and right-left sides, which was not found in other parameters..

#### ***Keywords:***

Morphometry, distal radius