**Original article:**

**Estimation of stature from radius length in living adult Bengali males**

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**Abstract:**

**Introduction:** Estimation of stature from length of long bones is of practical importance and has to be population specific. Work on estimation of stature in living subjects from radius length is limited. We attempted to develop a predictive equation for stature from radius length.

**Methodology:**Stature and length of radius were measured in 510 healthy adult Bengali men aged between 21-50 years. Scatter plots were constructed with regression lines to correlate height with length of left radius (LR) and right radius (RR), measurements being in centimeters. Multiple linear regression was applied to develop a predictive equation for stature based on age and radius lengths. Its validity was tested by predicting stature in 30 additional randomly selected subjects and comparing estimated height with actual height.

**Result:** Height showed strong correlation with length of left (*r* = 0.971, *p* < 0.001) and right (*r* = 0.974, *p* < 0.001) radius. The gender specific equation for prediction of stature was: Height = 23.9695 + 1.3848 X LR + 4.0723 X RR – 0.01678 X Age; the equation having a standard error of estimate (SEE) of 1.69 cm. If age was omitted, the equation was: Height = 23.5517 + 1.3932 X LR + 4.0571 X RR; with SEE of 1.70 cm. Strong agreement between observed and estimated heights in the holdout sample of 30 individuals was indicated by intraclass correlation coefficient of 0.978.

**Conclusion:** Using these equations it is possible to predict stature in adult Bengali males from radius length. Applicability to other situations remains to be explored.

**Key words:** Stature estimation, Radius