

Relationship between Digit Ratio (2D:4D) and Birth Weight in Nigerians

B. Danborn^{1*}, S. S. Adebisi¹, A. B. Adelaiye² and S.A. Ojo³

¹*Department of Anatomy,* ²*Department of Physiology, Faculty of Medicine,* ³*Department of Veterinary Anatomy, Faculty of Veterinary Medicine, Ahmadu Bello University, Zaria, Nigeria*

**Telephone: 08020655284; *E-mail: sbdanborn@abu.edu.ng*

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ABSTRACT Recently the subject of 2D:4D ratio has been receiving great attention from investigators. This present study investigated the association between 2D:4D ratio and birth weight in Nigerians. Subjects consisted of 215 males and 190 females with mean age (20.64 ± 6.94). Finger lengths were measured from the basal crease to the tip of the finger and second digit (2D) was divided by fourth digit (4D) to obtain 2D:4D ratio. 2D:4D ratio were categorized according to three birth weights categories and correlated with digit ratio in both males and females. In males only left 2D:4D showed significant difference within the 3 birth weight groups ($F=5.94$ and $P = 0.003$) a similar result was also seen in the females ($F = 3.75$ and $P = 0.03$). Overall in males there was a significantly negative relationship between right and left 2D:4D with birth weight ($r = -0.15$, $P<0.05$ and $r = -0.21$, $P<0.01$) respectively. In females positively significant relationship was obtained in both right and left hands ($r = 0.16$, $P<0.05$ and $r = 0.24$, $P<0.01$) respectively. Regression analysis of 2D:4D and birth weight yielded a positive result, but the predictive ability lies more in the left hands in both males and females: $BW = 7.767 - (4.669 \times \text{left } 2D:4D)$ and $BW = 0.627 + (2.746 \times \text{left } 2D:4D)$. This study has demonstrated the association between 2D:4D and birth weight and birth weight could be predicted most especially from the left hands.