

Abstract

The purpose of this study was to establish the norms of the craniofacial region of Malay children of both genders at aged group of 7 and 12-year-old. This cross-sectional study involves 200 healthy Malay school children aged seven and twelve year old. Each group of children consisted of 50 males and 50 females. These children were selected from Sekolah Kebangsaan Bandar Baru Bangi, Selangor.

Twenty-two (22) linear anthropometric measurements were taken and seventeen (17) proportions indices were derived from these linear measurements. Results showed that eighteen (18) of the twenty two (22) linear anthropometric measurement were higher in elder group of both gender and this finding was statistically significant ($p < 0.05$). Head length and head circumference were statistically significantly higher in female whereas the head height was higher in elder male. The eye fissure height was the only measurement that showed a significantly smaller reading in elder groups of both genders ($p < 0.05$).

Three indices namely the middle-lower face depth index, eye fissure index and upper lip height-mouth width index were significantly smaller ($p < 0.05$) in the elder group and this were observed for both genders. The proportion index for the nasal tip protrusion-nose width index was higher in elder group of both genders ($p < 0.05$). The lower-upper lip height index and mouth-face width index were significantly higher ($p < 0.05$) in elder male whereas the proportion index for nose-face height index was

higher in elder female ($p < 0.05$). In contrast with intercanthal index, was significantly lower in elder female ($p < 0.05$).

Gender-wise, it was noted that the male exhibited larger measurements than female for both aged groups.

For the 7-year-olds, the mean value showed a significant difference ($p < 0.05$) between genders only in 6 linear measurements. These were head width, head length, maxillary depth, mandibular depth, binocular width and upper lip height.

As for proportion indices in this group of children, the significant difference ($p < 0.05$) between genders were noted only in upper lip height-mouth width index and lower-upper lip height index. Male have a higher measurement in upper lip-height index. However female have a higher lower-upper lip height index than male and the result was statistically significant ($p < 0.05$).

For 12-year-old group, again the males generally have a larger measurement than females. The linear anthropometric measurements were significantly different ($p < 0.05$) between genders in 5 parameters. There were craniofacial height, mandibular width, maxillary depth, mandibular depth and upper lip height.

As for the proportion indices, there were significant difference ($p < 0.05$) between gender in mandible-face width index and upper lip height-mouth width index. In both cases the indices were higher in male.

The craniofacial of the subjects appeared to undergo a remarkably constant growth pattern with certain area showed a highly significant difference between male and female. It is possible that this normal value can be used for making a diagnosis, as facial analysis and as facial reference for both genders of Malay children at age 7- and 12-year-old.