

Angular Photogrammetric Analysis of the Soft Tissue Profile in Southern Chinese

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The evaluation of the patients' soft tissue profile is an important aspect in orthodontic diagnosis and treatment planning. The aim of this study was to quantify average parameters that define the lateral soft tissue profiles of 12-year-old southern Chinese children and to describe any gender differences.

A sample of 265 individuals (120 females and 145 males) was obtained from a Hong Kong Chinese Birth Cohort study. Photographs were taken in natural head position and 12 measurements were recorded with ImageJ 1.45.

Mean values including nasolabial angle (98.6°) and angle of facial convexity (169.0°) were analyzed for 12 parameters. Gender differences were present in the vertical nasal (N-Prn/N-Ort) ($P < 0.05$), labiomental (Li-Sm-Pg) ($P < 0.05$), nasal (Sn-Cm/NPrn) ($p < 0.05$), cervicomental (G-Pg/C-Me) ($P < 0.001$), facial convexity (G-Sn-Pg) ($p < 0.01$) and total facial convexity (G-Prn-Pg) ($P < 0.01$) angles.

The mean values from this study can be used to develop norm values for southern Chinese.