3 - Clinical Anatomy

OC-004 - (23737) - CEPHALOMETRICS OF PATIENTS WITH MALOCCLUSION REFERRED TO AN ACADEMIC HOSPITAL IN GAUTENG

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None

Malocclusion is a prevalent oral health concern, and management is crucial in preventing complications. Angles, for instance the ANB between subspinale, nasion and supramentale as well as SNB between sella, nasion and supramentale, are used to classify malocclusions into three classes. Although, interpopulational variations in skeletal morphology may influence these angles, limited research is available in the South African context. The "Wits" appraisal provides an alternative, linear assessment of jaw disharmony, minimising variability caused by skeletal differences. This study aimed to determine the cephalometrics according to the Wits appraisal category in South African Black adults referred to a tertiary dental clinic for dentoskeletal analysis using archived lateral cephalograms and to assess the influence of sex and age.

This cross-sectional quantitative study analysed 114 archived lateral cephalograms (63 females, 51 males). Standard cephalometrics were measured with ImageJ software. Statistical analysis was performed using PAST statistical programme.

Across Wits appraisal categories significant differences were revealed mainly in the ANB but also in the SNB angles. ANB and Wits appraisal showed a moderate correlation in the entire sample, but stronger in the negative category. The extent of mandibular protrusion was greater in males, while the extent of maxillary protrusion was greater in females. Significant age correlations were noted in females, where the gnathic index increased and the gonial angle decreased.

Cephalometrics associated with the malocclusion classes are different in South African Blacks compared to established norms and should be taken into consideration for orthodontic assessments and treatment.

Palavras-chave : malocclusion, mandibular protrusion, maxillary protrusion