

## ABSTRACT

Nowadays, people recognize tooth irregularities and jaw deformities and there are increasing numbers of patients seeking orthodontic treatment for esthetics, function and psychosocial problems. Cephalometric standard values can be invaluable aids to the practitioner in determining patient abnormalities and provide useful guidelines in orthodontic diagnosis and treatment planning. This study was conducted to determine hard and soft tissue cephalometric parameters by using Burstone and Legan & Burstone cephalometric analysis and to provide better knowledge of orofacial morphology among university students with balanced face. It was cross sectional descriptive study and lateral cephalometric radiographs of 30 samples (15 males and 15 females) were taken in natural head position. The cephalograms were traced, analyzed and interpreted using the landmarks and values given by Burstone's analysis for hard tissue and Legan & Burstone's analysis for soft tissue respectively. Mean values of hard and soft tissue cephalometric measurements of male and female were resulted. The independent t-test results of males and females of the present study was also employed to test for gender differences ( $P < 0.05$ ). Of 23 hard tissue measurements, 8 measurements (Ptm-N, N-A-Pg, N-ANS, PNS-N, U6-NF, L6-MP, PNS-ANS and Go-Pg) were significant and 1 measurement (Ar-Go) was very highly significant. Of 13 soft tissue measurements, 5 measurements [G-Sn/Sn-Me', Si-(Li-Pg'), Sn-Gn'-C, Sn-Stms/Stmi-Me', Stms-1] were significant and 1 measurement [Ls-(Sn-Pg')] was highly significant and this study revealed that some measurements were varied from the established Caucasian norms and this study revealed that some measurements were varied from the established Caucasian norms. Hence, it is essential to explore the norms on the different ethnic and gender groups in Myanmar population before accepting the standard Burstone's values and applying them in treatment planning of orthognathic surgical patients and postoperative follow-up for relapse tendencies after orthognathic surgical procedures. This is the preliminary study and it has been suggested that a larger