

題名:Computerized cephalometric analysis.

作者:蔡吉陽

Lin L.H; Liu Y-C; Tsai C.-Y

貢獻者:牙醫學系

上傳時間:2009-11-23

摘要:The aim of this study was to evaluate the accuracy and reliability of angular and linear cephalometric measurements using a computerized method of direct digital radiographs. This was then compared with the measurements obtained with a computerized method that uses a digitizing pad and hand tracing of printout radiographs. Pre-treatment digital cephalometric radiographs of 125 patients were traced using Vistadent 2.1 AT and Jiffy Orthodontic Evaluation (JOE) software programs and by hand tracing of the printouts. Twenty-six anatomical landmarks were defined on each radiograph by a single investigator and 28 variables were calculated. Statistical analysis was undertaken using one-way analysis of variance and multiple group comparisons using Duncan's test at a significance level of 0.05. Low correlation coefficients indicated poor reproducibility for nasolabial angle for each of the three methods ($P > 0.05$). Most of the variables showed consistency between the three methods except for nasolabial angle, ANS-Me, APFH, L1-NB, Nperp-Pg, Go-Me, and U1-NA measurements. The findings indicated that most of the cephalometric measurements were highly reproducible with direct digital radiographs using Vistadent 2.1 AT as well as with printouts using both JOE software and hand tracing. Despite the low correlation for some measurements between the Vistadent 2.1 AT, JOE, and hand-tracing methods, most of the commonly used measurements were accurate. The user-friendly and time-saving nature of the computerized method using digital radiographs makes it the preferred option.