

PubMed

Search

Display Settings  Abstract

*World J Orthod.* 2007 Summer;8(2):122-8.

## Validity and reliability of ear landmarks as reference points for cephalometric analysis.

Chutimanutskul W, Geenty JP, Shen G, Darendeliler MA.

Faculty of Dentistry, Sydney Dental Hospital, The University of Sydney, Sydney, Australia.

### Abstract

**AIM:** A cephalometric analysis was designed to determine whether the external ear is a suitable reference structure for the superimposition of cephalometric analysis.

**METHODS:** The sample consisted of 21 orthodontic patients with an average age of 16.5 years. Tracings of pretreatment and posttreatment cephalograms were superimposed on the cranial base. The landmarks on the ear, namely upper ear (UE), posterior ear (PE), and ear point (Ea), as well as the planes, namely UE-PE and EaP were defined to depict the position of the ear. The differences in these parameters between 2 timepoints were identified to indicate the stability of the ear position relative to the craniofacial complex. The paired t tests were used to evaluate the significance of displacement of these landmarks and planes at the 95% confidence interval.

**RESULTS:** The results showed that the angulation between EaP and SN showed no difference between pre- and posttreatment (mean, 0.000 degrees) and the angulation between E-line and SN changed very little (mean, 0.095 degree). However, the change in linear distance between S and N was significant (mean, 1.19 mm;  $P < .01$ ).

**CONCLUSIONS:** It is suggested that the ear and its related landmarks are reliable and feasible reference structures or points for cephalometric analysis.

PMID: 17580505 [PubMed - indexed for MEDLINE]

### Publication Types, MeSH Terms