READER'S FORUM

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Three-dimensional evaluation of the
correlation between lip canting and
craniofacial planes.

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We read with interest the article and wish to submit
few of our observations in the reader's forum.

Q1. There are some discrepancies in the literature
review reported in the article.

a. According to Padwa et al.,¹ occlusal canting can be
perceived by 90% of untrained observers if it exceeds
4°, and not 3° as reported by the authors. Further the
untrained observers were members of the medical
profession and not patients.

b. The statement regarding the study by Chu et al.²
that "asymmetry of the oral commissure measuring
< 3 mm and eye canting were not recognized as clin-
ically insignificant" is double negative and implies
probably the opposite of what the authors want to
convey.

c. Referring to the work of Song et al.,³ the authors
have stated that "55.3% adults without facial asym-
metry exhibit lip canting". We could not locate this da-
tum in the article. On the contrary, their study showed
that 54.7% of the non-facial deformity patients had
parallel (less than 1° angle) oral commissure and
exocanthion lines implying no clinically significant lip
canting.

Q2. The authors have used the mandibular symme-

try plane constructed from genial tubercle, menton
and mid-incisor tip of mandible to represent the
skeletal mid-sagittal plane of the lower face. Given
that the dental midline can be frequently deviated, in-
dependent of the skeletal component, the use of mid
incisor tip to create a skeletal mid-plane of reference
appears inapt.

Q3. The section on analysis of intraobserver repro-
ducibility is not clear. While the first line indicates the
use of Pearson's correlation coefficient, the last one
states that there was no statistically significant differ-
ence between the two sets of measurements (without
the mention of the test used). The actual statistics to
be reported with these tests are missing. Further, the
inappropriateness of correlation coefficient or *t*-test
for evaluating method agreement is well recognized.⁴

Q4. In the discussion, the authors have stated that
'Ferrario et al.⁵ reported that lip canting of < 3° is
generally difficult for people to perceive' and hence
used this to divide the sample into those with clinical-
ly prominent lip cant and those without. However, we
could not find this information in the article.

Q5. The results of this study are based on the sam-
ple of Class III patients requiring surgical correction.
Hence, they may not be generalizable to individuals
with other and less severe malocclusions, an import-
ant limitation of the study.

Questioned by

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ke, and Balasubramanian Madhan

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A1. a. Thank you for pointing it out. We agree that the sentence should be changed to 'Padwa et al.¹ reported that when the frontal occlusal plane canting exceeds 4° on posteroanterior cephalograms, 90% of the untrained observer notices the cant.'

b. There were some incorrect expression. The sentence must be changed from 'were not recognized' to 'were recognized'.

c. There were some confusing expression and numbers. In line with the suggestions, it would be better to say '45.3% of the asymmetric patients had larger than 1° of oral commissure and exocanthion line angle or 54.7 asymmetric patients had parallel oral commissure and exocanthion line'.

A2. We agree with your comments and it was discussed while reviewing the article. Subjects of this study were limited to patients who never underwent surgical treatment. We needed 3 points as reference of mandibular symmetry plane, which means we needed one more point except menton and genial tubercle. Even though some errors can be occurred by using mandible dental midline as a reference point, we thought it would be the best way to set mandibular symmetry plane. Your comment is insightful and pointed out important drawback of our study.

A3. We admit that the intraobserver reproducibility section could have been more clearly expressed. Paired *t*-test was used to compare results of number 2. We also believe statistical analysis need be modified. We thank you for listing the useful reference article.

A4. We appreciate your comments. Correct reference about lip canting degree is Lee et al.'s paper published at 2019.⁶ In this article, we intended to say layperson easily

recognize lip canting over 3.25°.

A5. Limitation of this study from sampling only Class III patients were discussed while reviewing the article. It is hard to use this research for Class I and Class II patients, and we admit that this is a major limitation of this study. Thank you for your questions.

Replied by

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