Reviewer's report

Title: Sagittal Jaw Position in relation to Body Posture in Adult Humans - a Rasterstereographic Study.

Version: 2 Date: 10 November 2005

Reviewer: Andrew Sandham

Reviewer's report:

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Thank you for letting me see the revised article.

There has now appeared a problem. The title has been changed to 'Saggital Incisor Position etc' and the classification changed to 'Angles classification'. This is confusing, and has focussed my attention on an inherent weakness in the study. The subjects had been selected on the basis of a retrognathic mandible, normal mandible or a prognathic mandible based on the horizontal measurement of overjet.

Jaw position is usually reflected in the incisor horizontal overjet, but as Angles classification is regarded as essentially a dental classification, it would be better to talk about the horizontal overjet, while remembering that the paper is dealing with the position of the mandible and its relationship to the upper jaw.

The original text in the 'Abstract' and the 'Methods' is acceptable - using Class I, II, III. even though this is not exactly correct.

There is a saggital classification of the mandible based on the SNA/SNB angular difference. This expresses a retrognathic mandible as having a Skeletal Class 2 relationship, and a prognathic mandible as a Skeletal Class 3. Normal is Skeletal Class 1.

In the absence of radiographs, we can only assume that the overjet reflected the underlying jaw relationship - which is the weakness in the study.

Corrections.

Title: The original title is therefore better - delete Saggital Incisor Position and replace with Saggital Jaw Position etc.

BACKGROUND:

line 15 - Angles Class II - there is no such thing - it is either Angles Class II div i or Angles Class II div ii - but I am not sure, as I dont have the paper to hand, which is quoted.

Methods:

line 4 'orthognatic' should read "orthognathic"
line 5 dental medicine students should read "dental students"
line 7 inverted overjet should read "reversed"
line 9 dental medicine students should read "dental students"
line 11 should read "No patients in the study sample showed a history of motor or neurological problems, and there were no subjects who had experienced orthopaedic trauma or had any other
diagnosed health problems.

Equipment.

line 8 - inverted should read "reversed"
line 9 - orthognatic should read "orthognathic" this spelling should be corrected throughout the article.

I hope that the editorial process would look at clarifying the meaning of the section -
b) Rasterstereographic back shape analysis

- its not clear what a 'light section' is and there is no hyphen between light and section.
line 7 1/25th should read 0.25sec

the anatomical descriptors should be changed to more conventional English
vertrbra prominens ??
spinae iliaca ??
cervicothoracic, thoracolumbar should read 'cervico-thoracic' and 'thoraco-lumbar'

Overall:
The authors reply to my initial comments do reveal a problem which they have in selecting the subjects for the study.

The study sample should have best been assembled on the basis of measurements of saggital jaw position using lateral cephalometric radiographs standardised for natural head posture. The authors report that they did not have radiographs for all the subjects.

The skull illustrations FIG 1a, b, c imply that radiographs and their analysis (e.g. cranio-cervical relationship) were part of the investigation and it is not sufficiently clear either in the 'Methods' section or in the legend to the illustration that the study was only trying to look at the relationship between overjet and body posture.

I find it strange that these orthodontic/orthognathic subjects did not have standardised lateral cephalometric radiographs available for routine diagnosis.

Despite these problmes I like this study - it opens up an interesting field of investigation - I am sure there is a relationship between craniofacial growth and development and body posture - but without a standardised cephalometric approach, all this paper can say, is that there is not a relationship between body posture and overjet - which I think is to be expected.

Andrew Sandham.

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No
Declaration of competing interests:

I declare no competing interests.