Reviewer’s report

**Title:** Trigeminal Electrophysiology in Patients with Orofacial Pain and Temporomandibular Disorders

**Version:** 3  **Date:** 5 February 2010

**Reviewer:** Gregory Cramer

**Reviewer’s report:**

**TITLE**

DISCRETIONARY - The title is specific and concise. Mentioning the proposed diagnostic model may better describe the purpose of the paper.

**SUMMARY/ABSTRACT**

MAJOR - The conclusions stated in the summary are not fully expressed in the discussion section of the paper. The author promises a diagnostic model using electrophysiological models to help distinguish between facial pain, temporomandibular disorders (TMDs), and neurological damage; however, facial pain and TMD dysfunction are likely co-morbid conditions, and can confound exam results as the associated pain can be ipsilateral, contralateral, or both. There is no model developed in the paper to differentiate the facial pain from the TMD. In addition, electrodiagnostics to determine the extent of neurological damage to the trigeminal nerve seems to be a previously established procedure.

**MATERIALS AND METHODS**

MINOR - There was a brief discussion on recruitment (existing TMD or non-existing TMD), but very little detail on demographic information and other criteria that might exclude study participants, e.g., existing neurological damage due to disease or trauma, co-morbid conditions like diabetes mellitus, etc.

MINOR - Where was this study conducted, meaning, what was the clinical setting?

DISCRETIONARY - Would the equipment used to conduct this study be readily available to clinicians managing similar conditions?

DISCRETIONARY - P7 – change “no-normal” to “abnormal”

MINOR - Statistical methods and data analysis seemed nebulous. Suggest a review of study results with a biostatistician.

**DISCUSSION**

MINOR - P9 – change “simmetry” to “symmetry” and capitalize the word Figure when contained in parentheses.

MINOR - P10 – change “scheletal” to “skeletal”

DISCRETIONARY - P12 – ensure the unit of measure is clear on “5-15’”
REFERENCES
MAJOR - Most references are before 1998, one in 2000, one in 2004, with the author relying heavily on early work from one of his co-authors. There is a wealth of more current information available on the subject matter.

Level of interest: An article of limited interest

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

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare I have no competing interests.