Reviewer's report

Title: Vibratory stimulation increase the electro-cutaneous sensory detection and pain thresholds in women but not in men

Version: 2 Date: 20 February 2006

Reviewer: Navil F Sethna

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Page 3, Methods: The authors applied vibration stimuli for 20 minutes. What was the rationale for 20 minute duration? Other investigators have suggested different durations, depending on the type of the noxious stimulus, to achieve analgesia. For instance Sherer et al. (Pain 1986;25:133-38) reported maintaining the vibrations stimuli for 45 minutes, others have reported 15 min. application time. Is the efficacy of the vibration stimulus dependent on application duration? That is to say, could men require longer stimulation than women to achieve similar analgesia?

Page 3, Methods: What was the numerical cut-off range for PainMatcher, was it 0-100? This information should be provided to the readers in the Methods section.

Page 4, Results: Pain threshold after vibration stimulation decreased in 10% of women and 37% of men. Was this statistically significant? If so, this paradoxical gender effect should be discussed in the Discussion section.

Page 4, Results: The authors should provide P values for men related to Table 1, and Figures 1 & 2.

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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)

Page 6, second paragraph: Suggest change the phrase “up to two segmental …” to “proximal two segmental…”

Page 6, sixth paragraph: The authors speculate that the differential effect of vibration analgesia in women could be related to kappa-opioid receptor response differences between the two genders but offer no animal or human data on effect of vibration on kappa receptors or other opioid receptors. Suggest delete this unfounded speculation

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Discretionary Revisions (which the author can choose to ignore)
What next?: Accept after minor essential revisions

Level of interest: An article of limited interest

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

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.