Reviewer's report

Title: Assessment of the paraspinal muscles of subjects presenting an idiopathic scoliosis: an EMG pilot study.

Version: 2 Date: 1 January 2005

Reviewer: Hermie H Hermens

Reviewer's report:

General
The paper is well written, clearly structured and the authors are well informed about the current literature. The subject is of interest as it looks into a non-invasive method to assess progress/effects of therapy in idiopathic scoliosis

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Major Compulsory Revisions
not required

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Minor Essential Revisions
page 7: it should be emphasised that the changes in the power spectrum and the increase of amplitude, can largely be explained by changes in the muscle conduction velocity, most likely caused by accumulation of metabolic waste. The explanation of derecruitment is a bit obscure and cannot explain a decrease in frequencies.
It would be preferable to have figure 3 and 4 combined to enable a direct comparison. The data on the lateral bending and axial rotation can be omitted as they are sufficiently described in the text.

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Discretionary Revisions (which the author can choose to ignore)
It should be emphasised more that median frequency is primarily related to muscle fibre conduction velocity and consequently to the muscle fibre diameter and to much less extend (largely indirect) to muscle fibre type (e.g. page 11, 14/15)
The absence of clear differences between the two groups with the suggestion that the subjects were not impaired enough (yet?) does suggest that changes in the muscle are more likely a consequence then a cause of the scoliosis (?)

What next?: Accept after discretionary revisions

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

Quality of written English: Acceptable

Statistical review: No

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