Reviewer's report

Title: Trauma-Induced Apoptosis of Thoracolumbar Intervertebral Discs: An In Vitro Analysis in Humans

Version: 1 Date: 10 March 2006

Reviewer: Helen Gruber

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)

The authors present an observational report on the presence of apoptosis-related gene expression in subjects who experienced thoracolumbar fracture.

1) The title is incorrect – the authors have not performed in vitro cell culture of human disc cells or tissues. The title needs to be revised.

2) The authors assume that the trauma which the individuals experienced resulted in the induction of apoptosis which they assessed. However, this assumption cannot be made from this observational study. In order to prove this, and animal study would be needed in which age- and degeneration-matched control spines were studied in addition to an experimental group subjected to trauma.

3) The authors do, however, present interesting data on a small number of human discs. Clinical data are missing which tell the reader what spinal levels were studied. The stage of disc degeneration is not documented (by Thompson score, x-ray, MRI or other methodology).

4) Figures: are error bars SD or sem?

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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)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Reject because scientifically unsound

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 that I have no competing interests.