Reviewer's report

Title: Evaluating regional blood spinal cord barrier dysfunction following spinal cord injury using longitudinal dynamic contrast-enhanced MRI: application in mouse

Version: 1 Date: 2 February 2009

Reviewer: Martin Burian

Reviewer's report:

Major Compulsory Revisions

I have none.

Minor Essential Revisions

1) The specification of the contrast agent used in the study (Materials and Methods) is somewhat misleading. Is the brand name really Gadolinium? This is the name of an element whose ion is present within the CA compound and which is responsible for the effect of CA to relaxation rates of the tissue and hence to the signal intensity. However, isn't the brand name of the contrast agent Magnevist?

2) There are few small typos. A typical example is e.g. on p. 8, line 16 of the text: „Following an IV bolus injection, Gd is first leaks from plasma to the injured SC tissue ...“. However, the meaning of the text is clear. Please, read the whole text carefully.

3) The Figure captions, starting on Figure 5 are shifted (at least in my pdf version). Caption for Figure 5 actually references Figs. 5 & 6, caption for Fig. 6 references Fig 7 and vice versa. Also the number of images is quite big. You may consider rearrangement of the images (grouping etc.).

Discretionary Revisions

1) Discussion spans over more than 2 pages. However, roughly half of it is actually a sound literature review with a little or no discussion. Shouldn't this be rather in Introduction?

Level of interest: An article of importance in its field

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

Statistical review: No, the manuscript does not need to be seen by a
statistician.

Declaration of competing interests:

I declare I have no competing interests.