Reviewer's report

Title: Lumbar puncture-related cerebrospinal fluid leakage on magnetic resonance myelography: Is it a clinically significant finding?

Version: 1 Date: 29 March 2013

Reviewer: Keiji Hashizume

Reviewer's report:

In this case study, MR myelography (MRM) was performed in 53 patients who received lumbar puncture using a relatively thick 21G Quinke needle, and the findings and incidence of post dural puncture headache (PDPH) were investigated. A cerebrospinal fluid leak was noted on MRM in 22 of the 53 patients, but PDPH only occurred in 3.

Comment 1 (Major Compulsory Revision)

No CSF leak was noted on MRM in 31 (=53-22) patients. The number of patients with PDPH of these 31 patients is important information, and should be clearly described in the text and discussed.

Comment 2 (Major Compulsory Revision)

In the region with the description ‘CSF leak on MRM’ in Figure, only the lumbar spinal root sleeve and water component near it are present. There is no basis to identify it as a leak (i.e., the water component is CSF). I think this is often observed in normal individuals.

Comment 3 (Major Compulsory Revision)

I agree with the conclusion that MRM findings should not be overestimated, but I do not agree with the viewpoint that the MRM finding represents a CSF leak. It is unacceptable to assume based on this that vasodilation is more likely to be the developmental mechanism of PDPH, rather than CSF leak.

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests.