

Supplementary figures

| Author | Year | MRI Strength (Tesla) | MRI slice thickness (mm) | Number of reviewers |
|-----------------|------|----------------------|--------------------------|----------------------------|
| Adamova et al | 2015 | 1.5 | ? | 1 (blinded) |
| Brauge et al | 2015 | ? | ? | 2 (blinded) |
| Heffez et al | 2004 | 1.5 | 4 | 1 (blinded) |
| Hehir et al | 2012 | ? | ? | 1 |
| Holman | 2008 | ? | ? | ? |
| Houten et al | 2008 | ? | ? | 2 |
| Karki et al | 2015 | 0.35 | 3.5 | ? |
| Kerkovsky et al | 2012 | 1.5 | 4 | ? |
| Kovalova et al | 2016 | 1.5 | ? | 2 (blinded) |
| Laimi et al | 2007 | 1.5 | ? | 3 (blinded) |
| Martin et al | 2018 | 3 | ? | 2 (also computer analysed) |
| Matsumoto et al | 1998 | 0.5, 1.5 | 7, 5 | 1 (blinded) |
| Nagata et al | 2012 | 1.5 | ? | 1 |
| Nakashima et al | 2016 | 1.5 | 3 | 2 |
| Smorgick et al | 2015 | ? | ? | ? |
| Sung et al | 2001 | ? | ? | 3 |
| Takao et al | 2013 | ? | ? | ? |
| Tejus et al | 2015 | 1.5 | ? | 2 (blinded) |
| Teresi et al | 1987 | 0.3 | 5 | ? |

Supplementary Table 1. Imaging information on included studies not included in the analysis. Included studies were analysed for data pertaining to the MRI strength and slice thickness, as well as the number of reviewers who assessed the presence of spinal cord compression in each study. “?” denotes a lack of information regarding that data. Where provided, data on the presence of blinding was included. One study also assessed for spinal cord compression using computational analysis.

1. Was the study's target population a close representation of the national population in relation to relevant variables?
2. Was the sampling frame a true or close representation of the target population?
3. Was some form of random selection used to select the sample, OR was a census undertaken?
4. Was the likelihood of nonresponse bias minimal?
5. Was an acceptable case definition used in the study?
6. Was the same mode of data collection used for all subjects?

Supplementary Figure 1. Risk of bias assessment criteria. The criteria were 6 of the 11 items developed by Hoy et al. that were judged to be of relevance to this review. All 31 studies that met the inclusion criteria were assessed by SS and MS to answer the 6 questions above. An answer of “yes” carried a score of 1, an answer of “no” carried a score of 0. A total score of 0-2 was interpreted as a high risk of bias, a score of 3-4 as a moderate risk of bias, and a score of 5-6 as a low risk of bias. The risk of bias of included studies is given in Table 1.

1. Was the sample representative of the target population?
2. Were study participants recruited by probability sampling, random selection or surveying the entire population?
3. Was the study size adequate?
4. Was the target population clearly defined?
5. Was the definition of cervical spinal cord compression objective?
6. Were the MRI images analysed by multiple blinded reviewers or computer software?
7. Was there appropriate statistical analysis?
8. Were all important confounding factors identified?
9. Were subgroups identified using clear objective criteria?

Supplementary Figure 2. Quality assessment criteria. The criteria were modified from the Joanna Briggs Institute Prevalence Critical Appraisal Tool to be of relevance to this review. All 19 included studies were assessed by SS and MS to answer the 9 questions above. An answer of “yes” carried a score of 1, an answer of “no” carried a score of 0. The quality scores of each study are given in table 1.