

As with any diagnostic tool, there are limitations as to its use in effectively and definitively diagnosing any particular condition.

Whilst MRI scanning allows a very precise picture of the spinal anatomy, it must be remembered that it has a lack of specificity, which will allow both false positives and false negatives.

In regard to arachnoiditis, it is the latter, the false negatives, which are the common problem.

This may arise for a number of reasons:

1. The referring clinician may not have specifically mentioned arachnoiditis in his request form, so it is not suspected by the radiologist.
2. Inadequate scan quality may not pick up the condition, especially in the early stages
3. Imaging nerve dysfunction, a physiological (dynamic body process) problem not just an anatomical one, is unlikely to be demonstrated by a static MRI image, which delineates anatomical structures. (c.f. a chest X-ray cannot determine heart rate or rhythm)
4. The reporting radiologist may not be familiar with the appearance of arachnoiditis
5. Other spinal pathology (disc herniation, stenosis) and in particular, epidural fibrosis, may mask arachnoiditis. The reporting radiologist may attribute clinical signs and symptoms to the more obvious pathology and hence not pick up arachnoiditis (remember that most cases of arachnoiditis arise on top of an underlying spinal disorder)
6. MRI findings are known not to always correlate well with clinical findings. (what you see is not necessarily what you get!)

What about a 'normal' scan result?

Many patients with all the clinical hallmarks of arachnoiditis find that their MRI scans turn up

How useful is the MRI?

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negative, which lead to clinician's assuming there is no problem.

Lack of evidence is, however, not evidence of a lack of problem.

More often than not, the MRI has been an inadequate test.

Alert: <http://www.fda.gov/cdrh/safety/neurostim.html>