

Nerve roots normally appear like strands of spaghetti, lying adjacent to each other, but in **adhesive arachnoiditis**

the nerve roots are adherent to each other and thus distorted, resembling overcooked and matted spaghetti.

This nerve root 'clumping' is one of the cardinal signs of arachnoiditis on radiographic images.

As arachnoiditis progresses, the nerve roots are drawn out to the edge of the dural (thecal) sac, thereby producing an appearance known as the 'empty sac'.

In severe adhesive arachnoiditis, the subarachnoid space may be obliterated entirely over several spinal levels.

Enhancement with gadolinium does not necessarily correlate well the clinical severity of arachnoiditis (Fitt, 1995) but it may suggest chronic radiculitis (inflammation of the nerve root).

Nerve roots in the cauda equina do not normally enhance with gadolinium so that this finding on MR would suggest inflammation or damage.

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