

Primarily, diagnosis is generally by taking a **history** rather than clinical examination, as the syndrome does not have any specific typical picture and many of the features fit the criteria for generic chronic pain syndrome.

The principal historical pointers are:

1. myelogram, particularly oil-based dye (pre-1987)
2. spinal surgery
3. repeated lumbar punctures
4. epidural/intrathecal injections of any type, particularly depo-Medrol, intrathecal chemotherapy e.g. methotrexate
5. infection: meningitis or epidural abscess
6. trauma
7. subarachnoid haemorrhage
8. chronic prolapsed discs or stenosis

Other relevant historical details include:

1. autoimmune conditions
2. tendency to scar badly

Most patients have multifactorial arachnoiditis, i.e. commonly they will have started with a mechanical back problem, been investigated possibly with a myelogram, had spinal surgery, possibly repeatedly, then had epidural steroid injections for pain relief.

Symptomatology:

Most common symptoms

1. neuropathic pain, often non-dermatomal*; mostly lower limbs, low back but may also affect upper half of the body
2. secondary musculoskeletal pain +/- fibromyalgic symptoms; joint pains; headaches
3. bladder/bowel control dysfunction +/- sexual dysfunction
4. motor weakness, cramps (tonic)
5. profuse sweating/temperature control problems; CRPS type appearance.*

* will include allodynia, dysaesthesia, bizarre sensations (walking on glass, water running down the leg) transient lancinating pains/electric shock sensations; sensory inattention etc. as per other types of neuropathic pain. CRPS may appear as altered skin colour, swelling, change in sweating, exquisite sensitivity, after minor injury.

The course of the condition is such that it tends to fluctuate, with intermittent flare-ups, but overall most patients will 'plateau out' and remain fairly stable unless there is an event such as a fall, accident or further surgery, which can cause a rapid deterioration.

Diagnostic tests:

The current investigation of choice is a T2 weighted, fat suppressed, high resolution MRI scan, **including axial views**

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Typical appearance will vary according to the stage but may include:

1. nerve root clumping including a 'string of pearls' appearance
2. 'empty sac' appearance due to nerve roots adhering to each other and the dura
3. complete obliteration of the subarachnoid space

If oil-based dye has been used, it may persist as either a thin film spread over a wide area and resembling fat on MRI scan, or as discrete encapsulated deposits either in the spine and/or the basal cisterns (due to tilting of the X-ray table during the test).

Obviously there may well also be other features related to the underlying spinal problem, e.g. stenosis, prolapsed disc, spondylolisthesis etc.