

IT MUST BE STRESSED THAT ANY PERSISTENT NEW SYMPTOM OR SUSTAINED INCREASE IN PAIN SHOULD BE CHECKED OUT BY A DOCTOR AND NOT ASSUMED TO BE PART OF THE ARACHNOIDITIS SYNDROME.

Overview:

Adhesive arachnoiditis presents with diverse symptoms, which can include problems outside the CNS.

This can best be described as a neurological syndrome.

However the treatments used for the pain and other symptoms also cause a variety of side-effects, so it is difficult to say exactly which symptoms can be directly and solely ascribed to arachnoiditis, and which are more complex in origin.

Primary: due to original spinal condition; and those attributable directly to AA; Secondary: musculoskeletal, autonomic, etc.; those secondary to pain; side-effects of medication

Tertiary: depression, anxiety etc.

Long (vi) wrote:

"The authors of all the major papers that describe chronic adhesive arachnoiditis conclude that the symptoms are so varied that none can be considered typical for arachnoiditis...the general consensus is that no typical syndrome exists."

The medical literature mostly describes adhesive arachnoiditis in terms of symptoms referable to the spine, i.e. in the lower back and or legs, with pain, weakness and sensory loss. Some authors also discuss bladder and sexual dysfunction. Jenik et al ([\[1\]](#)) described the symptoms as "predominantly syringomyelic sensory deficits".

This type of description fosters the common perception of arachnoiditis as a spinal condition.

However, in many cases, adhesive arachnoiditis is syndromic.

The Global survey in 1999, which gathered information from over 300 participants, found a wide range of symptoms. Overall, the common picture confirmed the syndromic nature of the condition.

Individuals who had a history of chemical insult tended to develop more florid symptoms and repeated exposure to chemical insult resulted in severe illness, often with other conditions diagnosed alongside the arachnoiditis, most notably autoimmune disorders.

Other surveys by Aldrete ([\[2\]](#)) in America and Simpson and Anderson ([\[3\]](#)) in New Zealand, have also helped to clarify the spectrum of symptoms seen in this condition.

One of the principle difficulties with arachnoiditis is that it is a complex situation, comprising most often an initial spinal problem such as disc disease, trauma etc. or some event such as meningitis.

On top of this there may have been invasive investigations such as myelograms, then further

procedures such as surgery, often multiple.

Later there may well be more invasive interventions such as epidural steroids or even the 'pump'. These may overlie a continuing spinal abnormality, including degenerative changes such as stenosis.

Aside from these considerations, we must also bear in mind the deleterious effects of unrelieved chronic pain, which, contrary to some medical opinion, may have significant and widespread impact on the body as a whole, such as increased muscle tone, raised stress hormones as well as secondary effects such as insomnia and depression.

These are not unique to arachnoiditis.

It is thus often more or less impossible to confidently attribute a specific symptom to the pathological process of arachnoiditis.

However, what is important is for clinicians and patients alike to develop a greater level of awareness of the typical problems one might encounter in symptomatic arachnoiditis.

It is worth noting that as a general proposition, the global survey findings suggested that the more severe or repeated the chemical insult, the more florid and systemic the resulting disease, often with concomitant conditions of an autoimmune nature.

This section of the article will attempt to clarify the range of symptoms that may be experienced in arachnoiditis. It must, however, be stressed that many people with arachnoiditis will not have some of these symptoms, especially the uncommon ones.

Spinal signs

Aldrete states that

“it must be kept in mind that the presence or absence of radiculopathy signs do not necessarily confirm or deny the diagnosis of ARC.”

This very important statement is at the heart of problems in patients being unable to get a definitive diagnosis, and the frequent dismissal of their problems as psychosomatic, or malingering, due to lack of clinical signs.

The ability of ARC to affect not only continuous areas, but also intermittent areas along a dermatome, can lead to confusion.

It is important to consider underlying spinal conditions such as spinal stenosis.

The chief symptom of stenosis is what is termed “neurogenic claudication” (from the Latin “claudico”, meaning “I limp”) which refers to lower limb pain, often bilateral, which comes on with walking or standing for a length of time. As the condition progresses, walking distance and standing time are progressively decreased.

Symptoms are relieved by sitting down or bending forward (compare disc herniation, in which bending exacerbates the pain or facet joint pain which is worse on leaning backwards).

Some patients will bend down or squat as if about to tie their shoe-lace, to relieve pain on walking and there is the “shopping cart” sign which is when a patient will lean over the back of the shopping trolley to relieve the pain of standing in a queue.

Flexion of the spine reduces symptoms, whereas extension exacerbates them.

Neurogenic claudication should be distinguished from vascular intermittent claudication.

The circulatory nature of the latter will present other features such as skin pallor or mottling, and impaired peripheral pulses.

Significantly, resting in the standing position (unlike neurogenic claudication) relieves the pain of vascular claudication on exercise.

The pain tends to be burning, gripping or cramping in nature, and radiates from the buttocks down the leg.

The patient may describe it as "vice-like". There may also be dull aching and fatigue in the thighs and legs.

Other symptoms may include tingling and numbness, as well as a degree of weakness.

In severe cases, urinary incontinence can occur. Low back pain may also be a feature, but not usually a predominant one.

A study by Jonsson et al ([\[4\]](#)) concluded that:

"Pain was more intense and positive straight leg raising test results were more common in younger patients, whereas reflex disturbances were more common in the elderly."

It must be remembered that other spinal conditions may co-exist with stenosis, in particular, disc disease.

This may complicate the clinical picture.

Aside from the local effects due to the arachnoiditis lesions and underlying spinal condition (e.g. degenerative disc disease), one must also take into account the effects of altered spinal dynamics: in protecting the affected spinal area, other areas are put under undue strain; a chronically abnormal posture may be adopted which results in thoracic and cervical complaints in addition to the lumbar pain.

These biomechanical/postural effects are the commonest cause of widespread pain.

Bearing in mind that Jenik described arachnoiditis symptoms as principally syringomyelic and the current prevailing theories about syrinx formation (altered CSF flow dynamics) I have hypothesised that these upper body symptoms are, in some cases, due to abnormal CSF flow (in essence sub-clinical syringomyelia).

It seems logical to suggest that scarring within the subarachnoid space will disturb CSF pressure in the enclosed system and that this will affect the entire cerebrospinal axis.

This might also explain the headaches, which are reminiscent of those caused by raised intracranial pressure.

A further explanation is that in cases of CIA, especially after intrathecal injections such as Myodil, the chemicals may have travelled up and down the subarachnoid space to some distance from the injection site, and may therefore have a direct toxic effect on those areas. (E.g. some patients who had cervical myelograms with Myodil now have cerebral arachnoiditis as well as cervical).

[1] Jenik F, Tekle-Haimanot R, Hamory BH *Paraplegia* 1981; 19(3): 140-54 Non-traumatic adhesive arachnoiditis as a cause for spinal cord syndromes. Investigation of 507 patients.

[2] Results in "Arachnoiditis The Silent Epidemic", 2000 JGH Editores

[3] Available at : <http://www.aboutarachnoiditis.org/content/articles/redcell/2-results.html>

[4] Jonsson B, Annertz M, Sjoberg C, Stromqvist B *Spine* 1997 Dec 15; 22(24): 2932-7 A prospective and consecutive study of surgically treated lumbar spinal stenosis. Part I: Clinical features related to radiographic findings.