

This is also known as hyperreflexia. It occurs in quadriplegic individuals (injury above T6). It indicates that the sympathetic nervous system is out of control.

I have come across isolated cases of arachnoiditis in which AD has caused severe problems.

These must have arisen due to damage to the connections between the sympathetic nervous system and the brain.

AD occurs when there is a source of irritation, pain or stimulus to the nervous system below the level of injury; the irritated area sends out a distress signal to the brain but it does not reach it; a reflex action occurs, contracting the blood vessels and causing a rise in blood pressure.

Should this rise too high, there is a risk of seizure, stroke or even death.

AD attacks commonly arise due to one of the following causes:

- Overdistended bladder: too much urine has accumulated and the bladder urgently needs draining
- Retained stool in the lower bowel (constipation)
- Pressure on the skin
- Trauma
- Infection
- Temperature changes
- Menstrual cramps
- Pressure on genitals during sexual activity

- Medical tests such as cystoscopy or gynaecological exam.

AD can be a medical emergency. Whilst it is rare in arachnoiditis patients, given the risk of stroke from an attack, I feel it warrants a mention in this article.

An attack of AD typically causes a sudden severe headache along with very high blood pressure.

Symptoms:

- Pounding headache
- See spots or blurred vision
- Nasal stuffiness
- Flushed face
- Red blotching on chest
- Sweating above the level of injury
- Goose bumps
- Clammy, cool skin
- Nausea
- Feeling anxious

A condition termed: **orthostatic hypotension-induced autonomic dysreflexia** is seen in chronic cervical myelopathy. (damage to spinal nerve roots in the neck)

This occurs when blood pressure falls, perhaps when changing posture suddenly, or in hot surroundings. The symptoms mentioned above may all occur.

Exacerbating factors:

- rapid positional change
- morning (due to overnight recumbency)
- large meals

- warm environment
- cough
- emptying bladder
- opening bowels
- exertion
- medication that causes blood vessel dilation

**Swelling (oedema)** of the limbs (c.f. reflex sympathetic dystrophy RSD) is seen in some patients.

However, it is difficult to assess whether this is a direct effect of arachnoiditis or a side effect of treatments such as intraspinal opiates. (See below)

It may be in part due to muscle weakness in the calves (due to nerve damage) which leads to inefficient venous return.

It may be neurogenic oedema such as that seen in diabetic autonomic failure ( [\[1\]](#) ).

Some patients develop lymphoedema of the lower limbs and may suffer from recurrent cellulitis, or occasionally, venous ulcers as seen in diabetic peripheral neuropathy.

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[\[1\]](#) Bannister Autonomic Failure Oxford Medical Press 2<sup>nd</sup>.Ed. 1988