

The 5 commonest problems are:

- sympathetically-maintained pain
- excessive sweating (diaphoresis)
- abnormal bladder function
- Raynaud's phenomenon
- panic attacks

A common component of the arachnoiditis syndrome is the effect on the **autonomic nervous system** . (responsible for regulating involuntary processes such as blood pressure and temperature, bladder and bowel function etc.)

Disturbance of this system occurs because the nerves involved run along the spinal cord in the 'sympathetic and parasympathetic chains' (thoraco-lumbar and cranio-sacral respectively) and also because of the effects of unrelieved pain on stress hormones.

Bowsher's paper ([\[1\]](#)) on central pain describes how most patients with central pain develop 'autonomic instability', by which he meant an increase of pain under physical and emotional stress, with cutaneous blood flow and sweating also being affected.

Ziegler et al ([\[2\]](#)) describe how systemic diseases such as diabetes can cause peripheral sympathetic neuropathy, giving rise to postural hypotension, heat intolerance etc.

They also maintain that patients with diseases of the sympathetic nervous system demonstrate marked abnormal stress responses to minor stresses such as change of posture or ambient temperature.

Blood pressure disturbance (high, low or fluctuating); this may cause dizziness, syncope, or headaches. Orthostatic (postural) hypotension may occur. Mathias ([3]) describes how in chronic autonomic dysfunction, pressor stimuli such as mental arithmetic, isometric exercise and cold, do not result in the normal increase in blood pressure.

Also, stimuli such as food ingestion, which would normally activate the sympathetic system to maintain blood pressure, tend to actually cause marked hypotension.

Khurana discussed cases with chronic cervical myelopathy who responded to orthostatic challenge with hypotension, followed by hyperhidrosis (excess sweating), hypertension and chills. ([4])

[1] Bowsher D *J Neurol Neurosurg Psychiatry* 1996 Jul; 61(1): 62-9 Central pain: clinical and physiological characteristics.

[2] Ziegler MG, Ruiz-Ramon P, Shapiro MH *Psychosom Med* Jul-Aug; 55(4):339-46 Abnormal stress responses in patients with diseases affecting the sympathetic nervous system.

[3] Mathias CJ *Hypertension* 1991 Nov; 18(5 Suppl): III22-30 Role of sympathetic efferent nerves in blood pressure regulation and in hypertension.

[4] Khurana RK *Neurology* 1987 Jul; 37(7): 1221-4 Orthostatic hypotension-induced autonomic dysreflexia.