

Cervical Myelopathy

CPR for Cervical Myelopathy¹

1. Gait deviation (possible drop attacks)

2. Positive Hoffmann's test

3. Positive inverted supinator sign

4. Positive Babinski sign

5. Age > 45 years

Purpose: to identify/diagnose patients with cervical myelopathy

Variables	Sensitivity	Specificity	+LR	Post-Test Prob
1+	0.94	0.31	1.40	43%
2+	0.39	0.88	3.30	64%
3+	0.19	0.99	30.90	94%
4+	0.09	1.00	∞	99%

Clinical Presentation:²

- Extremity paresthesia: diffuse *non-dermatomal* numbness and tingling in both arms and hands
- Distal weakness and clumsiness (manual dexterity); atrophy in interosseous muscles
- Decreased ROM in cervical spine, especially extension
- Unsteady or clumsy gait
- Neck pain and stiffness
- Shoulder and scapular pain
- Occipital headaches common
- Pain in shoulder or arms
- Urinary retention: rare and appears late
- Sensory loss

Prognosis:²

Complete remission never occurs and spontaneous temporary remission is uncommon.

75% of patients experience episodic worsening with neurological deterioration

20% have slow, steady progression

5% experience rapid onset and progression

Differential Diagnosis:²

- Adhesive capsulitis
- Brown-Sequard syndrome
- Carpal tunnel syndrome
- Cervical Disc Disease

Cervical Myelopathy

- Cervical Myofascial Pain
- Cervical Sprain and Strain
- Chronic Pain Syndrome
- Diabetic neuropathy
- Multiple Sclerosis
- Osteoporosis
- Rheumatoid Arthritis
- Traumatic Brachial Plexopathy
- Tumors
- Reverse or improve neurological symptoms

Examination:

- Cervical Myelopathy Cluster
- Reflexes: hyperreflexic biceps, quadriceps, Achilles
- Rule out any differential diagnosis

Diagnostic Imaging:²

MRI: T2-weighted imaging

- Identify spinal stenosis and rule out spinal cord tumors.
- Can assess amount of compression on spinal cord/nerve root compression

Treatment:²

- Relieve pain: traction and cervical manipulation
- Improve function: dynamic upper and lower limb exercises, balance training, aerobic exercises.
- Prevent neurological deterioration

References:

1. Cook C, Brown C, Isaacs R, Roman M, Davis S, Richardson W. Clustered clinical findings for diagnosis of cervical spine myelopathy. *Journal of Manual & Manipulative Therapy*. 2010;18(4):175-180. doi:10.1179/106698110x12804993427045.
2. Cervical Myelopathy - Physiopedia, universal access to physiotherapy knowledge. *Physio-pediacom*. 2017. Available at: http://www.physio-pedia.com/Cervical_Myelopathy. Accessed March 31, 2017.
3. Cervical Myelopathy - Spine - Orthobullets.com. *Orthobullets.com*. 2017. Available at: <http://www.orthobullets.com/spine/2031/cervical-myelopathy>. Accessed March 31, 2017.