

CERVICAL ARTERY DISSECTION ASSESSMENT

CONCERNING PRESENTATIONS

1. **Neck pain**- sudden, sharp, severe, steady, throbbing unchanged by mechanical maneuvers or analgesics
2. **Headache**- new, different, sudden onset, unilateral, resembling migraine or cluster
3. **Vertigo** - “spinning” or continuous

ENVIRONMENTAL

- Recent acute infection, i.e., mainly respiratory
- Hyperhomocysteinaemia, i.e., B-6, 9 and 12 vitamin deficiency
- Low body mass index
- Low cholesterol
- Smoking
- Fluoroquinolone antibiotic use

INHERITED

- Medical history of arterial anomalies, i.e., Fibromuscular dysplasia
- Connective tissue disorders, i.e., Ehler-Danlos syndrome type IV; Marfan’s syndrome; Osteogenesis Imperfecta; Loeys-Dietz syndrome
- Familiar history of cervical artery dissection

RISK FACTORS

INTERNAL CAROTID

- Recent head, neck or thoracic trauma
- New ipsilateral periorbital, frontal, and upper neck pain
- Distinct, new and continued headache
- Partial Horner’s syndrome
- Retinal and/or cerebral ischemic symptoms
- Pulsating tinnitus

VERTEBRAL

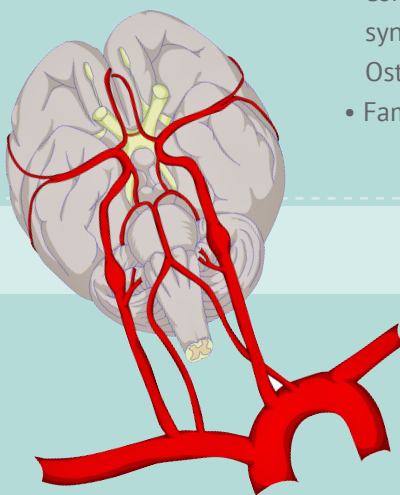
- Recent head, neck or thoracic trauma
- New ipsilateral sub-occipital neck pain
- Distinct, new and continued headache
- Brainstem ischemic symptoms
- Cerebellar ischemic symptoms

SYMPTOMS

SIGNS

- Cranial nerve palsy XII, XI, X, IX
- Hypertension (>140/90)
- Neck swelling
- Midline tenderness suggestive for a fracture

- Cervical radiculopathy (C5-C6)
- Hypertension (>140/90)
- Neck swelling
- Midline tenderness suggestive for a fracture



ISCHEMIC SIGNS AND SYMPTOMS

- Weakness
- Numbness
- Speech deficit
- Visual disturbance
- Vertigo
- Difficulty walking/ falls
- Difficulty swallowing
- Nausea
- Confusion or anxiety
- Nystagmus (vertical)

MEDICAL REFERRAL:

The presence of two or more distinct symptoms or two or more distinct signs may warrant emergent medical referral. ⁽¹⁾

MANUAL THERAPY:

- Minimize end-range when conducting cervical manual-therapy, especially rotational techniques
- Be specific and minimize force and amplitude when manipulating a single spinal segment
- Appraise pre-manipulative cervical provocation test prior to manual intervention