TORTICOLLIS

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Torticollis

- **An abnormal positioning of the head and neck relative to the body**
- The typical presentation of torticollis has the head and neck side bent towards the affected side, the face turned away from the affected side and the shoulder on the affected side raised
- The head could be in flexion (if **SCM is involved**) or extension (if **levator scapula is involved**)
- Management of torticollis can pose a challenge to the physician owing to the fact that the condition can be acute or chronic, congenital or acquired, and idiopathic or secondary to trauma or disease. Moreover, the onset of torticollis can occur at any age.
- In addition, laboratory studies are not particularly helpful and are dependent on the underlying disorder, although they are useful if **infection is suspected**.

ACUTE ACQUIRED TORTICOLLIS

- **Is a painful unilateral shortening or spasm of the neck resulting in an abnormal head posture**
- Shortening can be due to latent TP's that have been activated by holding the muscle in a shortened position for an extended period of time (telephone to ear)

CAUSES OF ACUTE ACQUIRED TORTICOLLIS

- Activation of latent TP's in cervical muscles
- Subluxation of C1 on C2 due to trauma
- Facet joint irritation
- Infection, inflammation of the throat or cervical lymph nodes
- Disc related pain

ACQUIRED TORTICOLLIS

SIGNS & SYMPTOMS

- Onset is usually sudden (Client wakes up with it)
- The head and neck are in typical torticollis position
- Affected muscles are shortened and in spasm
- Pain is present, especially with movement
- Range of movement in drastically decreased due to pain
- Breathing is rapid due to pain
- If TP's in SCM are affected, tinnitus, nausea or tearing of the eye on affected side may be present
- Pain referral may be present
- With facet joint irritation, pain can be sudden after abrupt neck movement. Pain may also be felt between the scapulae. Position is side bending is away from the affected side
- If cervical DDD is the cause, the pain has a gradual onset, usually after sleeping in a awkward position

CONGENITAL TORTICOLLIS

- **Is a contracture of one SCM resulting in abnormal head posture**
- Present from infancy, and can continue to childhood unless treated with stretching or surgery

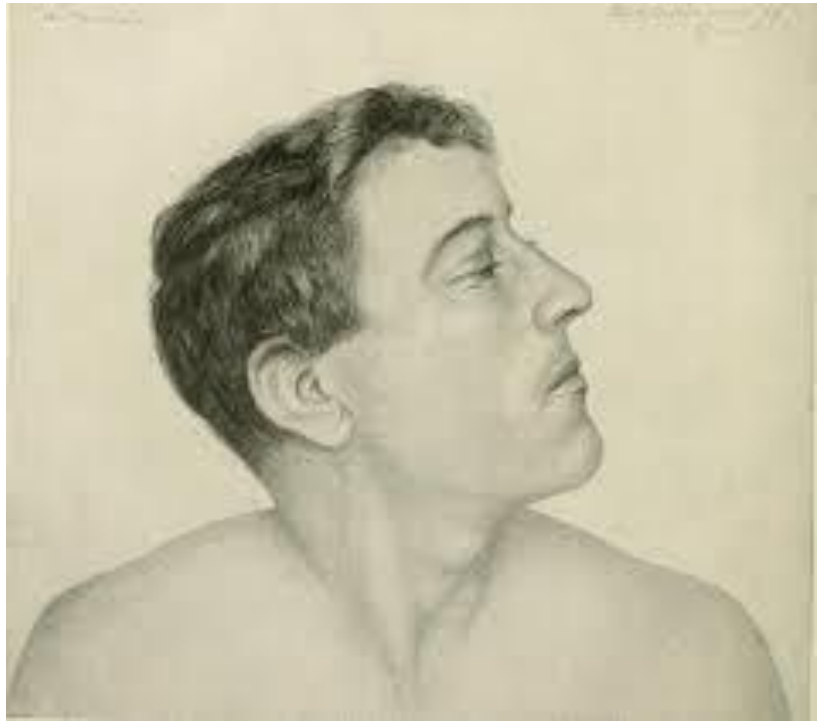
CAUSES

- Idiopathic
- Not clearly understood but thought to be associated with trauma in the birth process, causing inflammation and later fibrosing of the affected SCM (forceps delivery, caesarean, breech birth)
- Tissue ischemia may be a contributing factor
- Cranial bone torsion changes the angulation of the occiput

SYMPTOMS

- May develop over days or 2-3 weeks after birth
- Present with typical torticollis position
- Contracture, thickening and shortening of one SCM muscle and scalene and fascia associated with that area
- Possibly a palpable mass in the muscle
- Unable to move neck normally due to contracture
- Other postural dysfunctions such as scoliosis may be present

SPASMODIC TORTICOLLIS



- **Is a localized dystonia (abnormal tonicity of muscle, characterized by prolonged, repetitive muscle contractions that may cause twisting or jerking movements of the body or a body part) resulting in an involuntary spasm of cervical muscles and an abnormal head position**
- This uncontrollable rhythmic spasm of the neck muscles often worse when a person is stressed

CAUSES OF SPASMODIC TORTICOLLIS

- Idiopathic
- Linked to depression, severe stress and occupational positioning of the head
- CNS lesions
- Postural dysfunction such as scoliosis
- Trauma of the head and neck

SYMPTOM PICTURE

- Has an adult onset
- Presents with typical torticollis position
- The affected muscles of the neck jerk and twitch, and the affected shoulder shrugs uncontrollably
- Can be intermittent or permanent

CONTRAINDICATIONS

- Caution with clients receiving botulinum injection therapy. Get clearance from the physician prior to local treatment to injection site.
- For any torticollis avoid full stretch to the SCM if the vertebral artery test is positive or if the client experiences dizziness with the stretch
- Avoid direct pressure over the carotid artery
- For Acute Acquired Torticollis do not passively stretch the shortened muscles
- For Congenital Torticollis, if working with infants, use appropriate pressure when treating contractures
- For Spasmodic Torticollis, painful techniques are contraindicated as they may increase CNS activation and increase muscle tone

ASSESSMENT

- **Observations:**
- Full posture assessment

- **Palpation:**
- Locate acutely spasmodic muscle
- Heat, point tenderness, firmness and increased tone
- Contracture may be tender and cool due to ischemia, or hard and fibrosed

- **AROM/PROM** on the neck, thorax, shoulder joints
- With **Acute Acquired and Spasmodic Torticollis** AROM is painful and very restricted, PROM is restricted when trying move neck out of the torticollis position
- With **Congenital Torticollis** AROM and PROM away from affected side is restricted
- RROM testing with **acquired torticollis**, is performed once the spasm has reduced, **congenital torticollis** may reveal weakness of the contralateral neck muscles as well as ipsilateral extensors

ASSESSMENT

- **Neurological:**
- Assess dermatomes/myotomes/reflexes
- Nerve compression highly likely. Assess for nerve integrity to locate areas of compression
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- **Referred Pain:**
- Assess for both latent and active TP's
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- **Special Tests:**
- Cervical depression and distraction tests are used to differentiate a cervical nerve root compression
- Vertebral artery test rules out cerebral vascular insufficiencies one the spasm has reduced
- Spurling's test is performed after the spasm is reduced. May initiate facet joint irritation

MASSAGE FOR ACUTE ACQUIRED TORTICOLLIS

- **Positioning**: supine
- Decrease SNS firing (diaphragmatic breathing)
- Decrease pain, spasm and abnormal positioning while working within the client's pain tolerance
- **Start with the unaffected side** while supporting the affected side, starting with MFR techniques, both indirect and direct. Follow with slow gentle effleurage and petrissage to gain the clients trust
- **Affected side** – techniques that apply direct pressure may be too painful for muscles that are spasmodic. Possibly work with a gentle form of pin and stretch for SCM if within client's pain levels.
- Indirect techniques may be more effective
  - Reciprocal Inhibition techniques for affected SCM
  - GTO release and O&I technique are performed on the SCM attachments
  - Repetition of techniques may be necessary to reduce the spasm

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- Be sure to massage the surrounding muscles as well (levator scapula, Scalenes, upper traps)
- Once the spasm has decreased or is less painful gentle on-site work such as vibrations, stroking, light fingertip kneading to affected muscles
- TP's in SCM can be treated with light pincer grasp technique
- All other muscles of the neck are assessed for TP's and hypertonicity and addressed within the client's pain tolerance
- Pain free PROM is also indicated

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- GTO to suboccipitals and long axis traction of the occiput are performed
- Joint play to any hypomobile vertebra is applied in pain free manner
- Passive stretch to SCM can be performed only if the spasm is completely reduced and client is willing
- Treatment is finished with soothing stroking, petrissage to muscles of mastication and scalp

SELF-CARE

- Diaphragmatic breathing
- Self massage
- Gentle stretch of shortened structures with no pain for the client
- Address contributing factors of the abnormal posture
- Strengthen weak structures
- **Hydrotherapy:**
- Hydro depends on the type of spasm or shortening that is present. Local cold is used for an analgesic effect, while heat is used with TP to increase local circulation

MASSAGE FOR CONGENITAL TORTICOLLIS

- Treatment may only last 5 – 10 minutes, but will likely extend as the treatment progresses
- **Positioning** is supine
- **Hydrotherapy** heat to affected structures
- Goals of treatment are:
  - Lengthen contractured structures
  - Reduce abnormal posture
  - Increase range of motion
  - Strengthen weakened structures
- Fascial glide to SCM in a segmental manner
- Gentle stretching of affected muscles
- General Swedish techniques to surrounding areas, Non-swedish techs like NMT, and Craniosacral Techs are indicated for cranial bone/membrane distortions.

SELF-CARE

- Parents of infant clients are instructed on how to stretch and reposition the head
- Range of motion exercises (use a toy to guide the eyes and head of the baby)
- Referral to other practitioners who are trained in Neuromuscular therapy & craniosacral techniques

TREATMENT for SPASMODIC TORTICOLLIS

- **Supine positioning**, or side lying on the unaffected side with support of pillowing under the head.
- DDB to decrease SNS firing and spasm
- **Hydro**: Heat to reduced hypertonicity
- Full body relaxation massage, techniques used are gentle and soothing
- **Treating compensatory structures** first, diaphragm, intercostals, and pectoral muscles.
- Direct massage on the neck is CI'd.
- **Subsequent treatments**: Cervical traction is introduced

SELF-CARE

- DDB to help with spasm control
- PnF AFROM of the neck
- Agonist contraction