Torticollis

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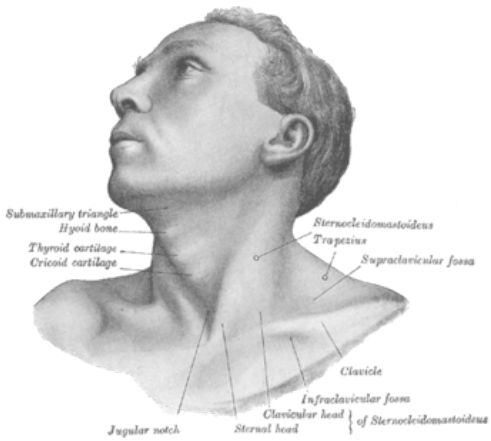
Classification and external resources



The muscles involved with torticollis

ICD-10	M43.6 (http://apps.who.int/classifications/icd10/browse/2010/en#/M43.6)
ICD-9	723.5 (http://www.icd9data.com/getICD9Code.ashx?icd9=723.5)
DiseasesDB	31866 (http://www.diseasesdatabase.com/ddb31866.htm)
MedlinePlus	000749 (http://www.nlm.nih.gov/medlineplus/ency/article/000749.htm)
eMedicine	emerg/597 (http://www.emedicine.com/emerg/topic597.htm) orthoped/452 (http://www.emedicine.com/orthoped/topic452.htm#)
MeSH	D014103 (http://www.nlm.nih.gov/cgi/mesh/2014/MB_cgi?field=uid&term=D014103)

Torticollis, also known as **wry neck** or **loxia**,[note 1] is a dystonic condition defined by an abnormal, asymmetrical head or neck position, which may be due to a variety of causes. The term *torticollis* is derived from the Latin words *tortus* for twisted and *collum* for neck.[1][2]

Contents

Description

Torticollis is a fixed or dynamic tilt, rotation, or flexion of the head and/or neck. The type of torticollis can be described depending on the positions of head and neck.[3][1]

- **laterocollis** : the head is tipped toward the shoulder
- **rotational torticollis** : the head rotates along the longitudal axis
- **anterocollis** : forward flexion of the head and neck[4]
- **retrocollis** : hyperextension of head and neck backward[5]

A combination of these movements often may be observed.

Classification

A multitude of conditions may lead to the development of torticollis including: muscular fibrosis, congenital spine abnormalities, or toxic or traumatic brain injury.[2] A rough categorization discerns between congenital torticollis and acquired torticollis.

Congenital muscular torticollis

The etiology of congenital muscular torticollis is unclear. Birth trauma or intrauterine malposition is considered to be the cause of damage to the sternocleidomastoid muscle in the neck.[2] This results in a shortening or excessive contraction of the sternocleidomastoid muscle, which curtails its range of motion in both rotation and lateral bending. The head typically is tilted in lateral bending toward the affected muscle and rotated toward the opposite side.

The reported incidence of congenital torticollis is 0.3-2.0%.[6] Sometimes a mass, such as a sternocleidomastoid tumor, is noted in the affected muscle at the age of two to four weeks. Gradually it disappears, usually by the age of eight months, but the muscle is left fibrotic.[2]

Initially, the condition is treated with physical therapies, such as stretching to release tightness, strengthening exercises to improve muscular balance, and handling to stimulate symmetry. A TOT Collar is sometimes applied. About 5–10% of cases fail to respond to stretching and require surgical release of the muscle.[7][8]

Acquired torticollis

Noncongenital muscular torticollis may result from scarring or disease of cervical vertebrae, adenitis, tonsillitis, rheumatism, enlarged cervical glands, retropharyngeal abscess, or cerebellar tumors. It may be spasmodic (clonic) or permanent (tonic). The latter type may be due to Pott's Disease (tuberculosis of the spine).

- A self-limiting spontaneously occurring form of torticollis with one or more painful neck muscles is by far the most common ('stiff neck') and will pass spontaneously in 1–4 weeks. Usually the sternocleidomastoid muscle or the trapezius muscle is involved. Sometimes draughts, colds, or unusual postures are implicated; however in many cases no clear cause is found. These episodes are

commonly seen by physicians.

- Tumors of the skull base (posterior fossa tumors) can compress the nerve supply to the neck and cause torticollis, and these problems must be treated surgically.
- Infections in the posterior pharynx can irritate the nerves supplying the neck muscles and cause torticollis, and these infections may be treated with antibiotics if they are not too severe, but could require surgical debridement in intractable cases.
- Ear infections and surgical removal of the adenoids can cause an entity known as Grisel's syndrome, a subluxation of the upper cervical joints, mostly the atlantoaxial joint, due to inflammatory laxity of the ligaments caused by an infection. This bridge must either be broken through manipulation of the neck, or, surgically resected.
- The use of certain drugs, such as antipsychotics, can cause torticollis.[9]
- Antiemetics - Neuroleptic Class - Phenothiazines
- There are many other rare causes of torticollis.

Spasmodic torticollis

Torticollis with recurrent, but transient contraction of the muscles of the neck and especially of the sternocleidomastoid. Synonyms are "intermittent torticollis", "cervical dystonia" or "idiopathic cervical dystonia", depending on cause.

Acquired Torticollis in Infants

Infants often develop torticollis as a result of the amount of time they spend lying on their back during the day in car seats, swings, bouncers, strollers, and on play mats. Infants with torticollis have a higher risk of plagiocephaly or flat head syndrome. Most pediatricians recommend regular repositioning of a baby for healthy head and neck movement. Torticollis is almost always preventable in infants.

Prevention

Correct positioning is important, and most pediatricians recommend parents reposition baby's head every 2–3 hours during waking hours. (At feeding time, diaper changes, while baby sleeps, etc.)

If torticollis is not corrected, facial asymmetry often develops.[10] Head position needs to be corrected before the approximate age of 18 months for improvement to occur. Younger children show the best results.

Common treatments might involve a multi-phase process:

1. Neck and shoulder stability exercises
2. Stretches
3. Manipulation of the neck by an Doctor of Chiropractic, Occupational therapist, Physical therapist, Massage Therapist or Doctor of Osteopathic Medicine
4. Extended heat application
5. Massage

Diagnosis

Evaluation of a child with torticollis begins with history taking to determine circumstances surrounding birth and any possibility of trauma or associated symptoms. Physical examination reveals decreased rotation and bending to the side opposite from the affected muscle. Some say that congenital cases more often involve the right side, but there is not complete agreement about this in published studies. Evaluation should include a thorough neurologic examination, and the possibility of associated conditions such as developmental dysplasia of the hip and clubfoot should be examined. Radiographs of the cervical spine should be obtained to rule out obvious bony abnormality, and MRI should be considered if there is concern about structural problems or other conditions.

Evaluation by an optometrist or an ophthalmologist should be considered in children to ensure that the torticollis is not caused by vision problems (IV cranial nerve palsy, nystagmus-associated "null position," etc.).

Veterinary Medicine

In veterinary literature usually only the lateral bend of head and neck is termed torticollis, whereas the analogon to the rotatory torticollis in humans is called a head tilt. The most frequently encountered form of torticollis in domestic pets is the head tilt, but occasionally a lateral bend of the head and neck to one side is encountered.

A guinea pig with a head-tilt

Head tilt

Causes for a head tilt in domestic animals are either diseases of the central or peripher vestibular system or relieving posture due to neck pain. Known causes for head tilt in domestic animals include:

- *Encephalitozoon cuniculi* (or short *E. cuniculi*) infection in rabbits[11]
- Inner ear infection
- Hypothyroidism in dogs[12]
- Disease of the VIIIth cranial nerve the N. Vestibulocochlearis through trauma, infection, inflammation or neoplasia
- Disease of the brain stem through either stroke, trauma or neoplasia
- Damage to the vestibular organ due to toxicity, inflammation or impaired blood supply
- Geriatric vestibular syndrome in dogs

Notes

1. ^ Not be confused with the genus **Loxia** covering those bird species known as "crossbills", which was assigned by Swiss naturalist Conrad Gesner because of the obvious similarities.

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External links

- Head Tilt: Causes and Treatment (http://www.rabbit.org/journal/3-8/head-tilt.html)

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