Saudi Journal of Medicine and Public Health

https://saudijmph.com/index.php/pub

https://doi.org/10.64483/202522544

Torticollis: Multidisciplinary Clinical Evaluation and Management in Physiotherapy, Radiology, and General Medicine

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Abstract

Background: Torticollis, also known as twisted neck, is a common clinical condition characterized by abnormal head and neck posture resulting from involuntary muscular contractions or structural abnormalities. It affects individuals across all age groups and may range from benign, self-limiting presentations to manifestations of serious neurological or systemic disease. Due to its heterogeneous etiology and variable clinical presentation, torticollis requires careful multidisciplinary evaluation.

Aim: This article aims to provide a comprehensive overview of torticollis, emphasizing its etiology, clinical presentation, diagnostic evaluation, and management strategies from a multidisciplinary healthcare perspective.

Methods: A narrative clinical review approach was employed, integrating current medical, physiotherapeutic, neurological, and radiological perspectives on torticollis. The review synthesizes anatomical, epidemiological, and clinical data to support evidence-based assessment and treatment.

Results: Torticollis is broadly classified into congenital and acquired forms, with etiologies including musculoskeletal, dermatogenic, ocular, vestibular, rheumatological, and neurogenic causes. Cervical dystonia represents the most prevalent form of adults, often involving the sternocleidomastoid and surrounding cervical muscles. Clinical evaluation remains the cornerstone of diagnosis, supported by imaging and laboratory investigations in selected cases. Management is individualized and commonly involves conservative measures such as physiotherapy, pharmacologic therapy, botulinum toxin injections, and, in refractory or structural cases, surgical intervention.

Conclusion: Early recognition and accurate etiological diagnosis of torticollis are essential to optimize outcomes, minimize complications, and improve quality of life. A coordinated interprofessional approach is critical for effective long-term management.

Keywords: Torticollis; Cervical dystonia; Neck pain; Physiotherapy; Multidisciplinary management.

Introduction

Torticollis, commonly referred to as twisted neck, is derived from the Italian term “torti colli” and describes an abnormal posture of the head and neck characterized by involuntary deviation, tilt, or rotation. The clinical presentation varies widely and may include sustained flexion, extension, lateral inclination to the right or left, or rotational deformity. Based on the predominant direction of deviation, torticollis has been classified into several forms, including horizontal, vertical, oblique, and torsional types. These postural abnormalities result in a characteristic misalignment of the head relative to the cervical spine and shoulders, often accompanied by

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Receive Date: 07 December 2025, Revise Date: 29 December 2025, Accept Date: 31 December 2025

discomfort or functional limitation. Torticollis represents a common clinical condition across different age groups, with epidemiological estimates suggesting that up to ninety percent of individuals experience at least one episode during their lifetime. While many cases are transient and self-limiting, torticollis may also reflect underlying pathological processes. Congenital torticollis is generally considered benign; however, acquired forms may be associated with serious etiologies, including neurological disorders or brain injury. Consequently, careful clinical evaluation is essential to distinguish uncomplicated presentations from those requiring urgent investigation. The majority of adult cases are attributed to disturbances in local neuromuscular control, particularly focal dystonia. Cervical dystonia is recognized as one of the most prevalent focal dystonias in adults and is characterized by sustained or intermittent involuntary contractions of cervical muscles. These contractions frequently involve the sternocleidomastoid and trapezius muscles, resulting in abnormal head posture and restricted voluntary movement. The specific pattern of neck deviation depends on the muscles predominantly affected, and it is important to note that not all abnormal head or neck positions meet the diagnostic criteria for torticollis [1][2].

The cervical musculature is anatomically complex and functionally specialized. From a structural perspective, the neck muscles are broadly organized into superficial and deep layers. The superficial group includes long muscles responsible for gross movements of the head and neck, while the deep paravertebral muscles provide segmental stability and fine motor control. Among these, the sternocleidomastoid plays a central role in the development of cervical dystonia. Located in the anterior cervical region, it forms a prominent anatomical landmark and extends from the sternum and medial clavicle to the mastoid process and lateral occipital bone. Its obliquely oriented fibers enable contralateral rotation, ipsilateral lateral flexion, and forward flexion of the head. Additional muscles implicated in torticollis include the splenius muscles, trapezius, levator scapulae, scalene muscles, and platysma. The coordinated activity of these muscles is regulated by the cervical nervous system, which comprises eight pairs of cervical nerves emerging from spinal levels C1 to C8. These nerves are particularly vulnerable to compression or irritation secondary to structural or pathological changes, which may further contribute to the development or persistence of torticollis [3][4][5].

Etiology

The etiology of torticollis is multifactorial and reflects a wide spectrum of underlying mechanisms ranging from benign musculoskeletal conditions to complex systemic and neurological disorders. This diversity highlights the importance of comprehensive clinical assessment, as torticollis may represent either an isolated local dysfunction or a manifestation of a more serious disease process. Congenital torticollis typically originates during intrauterine life or at the time of birth. Mechanical stress or trauma affecting the sternocleidomastoid muscle may lead to muscle edema, ischemia, and subsequent fibrosis. This pathological process results in shortening of the muscle fibers, producing a persistent abnormal head posture that becomes evident early in infancy. If not identified and managed appropriately, congenital torticollis may lead to secondary craniofacial asymmetry and functional impairment. Dermatogenic torticollis arises from pathological changes in the skin and subcutaneous tissues of the neck. Conditions such as burns, surgical scars, or severe inflammatory lesions can lead to skin contracture and reduced tissue elasticity. These changes restrict cervical mobility and may force the head into a fixed abnormal position as a compensatory response to pain or mechanical limitation. Ocular torticollis represents a compensatory postural adaptation to disorders of the extraocular muscles. Paralysis or imbalance of the oblique ocular muscles can impair visual alignment, prompting the individual to adopt a tilted or rotated head position to maintain binocular vision and reduce diplopia. In such cases, the cervical posture is secondary to visual system dysfunction rather than primary musculoskeletal pathology [1][2][3].

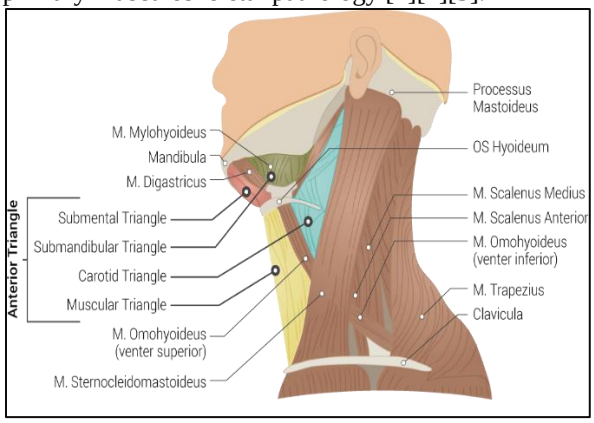

Fig. 1: Superficial Neck Anatomy.

Rheumatological causes of torticollis are associated with inflammatory or degenerative joint diseases affecting the cervical spine. Conditions such as rheumatoid arthritis or ankylosing spondylitis may produce pain, stiffness, and structural changes that limit neck motion and result in abnormal head positioning. Vestibular torticollis is linked to disorders of the inner ear, particularly the labyrinth, where disturbances in balance perception lead to reflexive head tilting as the body attempts to restore postural equilibrium. Neurogenic torticollis develops as a consequence of central or peripheral nervous system injury, including stroke, traumatic brain injury, or spinal cord lesions. Among all etiological categories, spasmodic torticollis or cervical dystonia is the most prevalent. This form is characterized by

sustained or intermittent involuntary muscle contractions and increased muscle tone, often triggered by emotional stress, physical strain, or abrupt movements. Experimental models further demonstrate that torticollis may result from the interaction between local musculoskeletal factors and central nervous system dysfunction, reinforcing its complex and multifaceted nature [6][7][8][9].

Cervical dystonia is broadly classified into primary and secondary forms based on the presence or absence of an identifiable underlying cause. Primary cervical dystonia, also referred to as idiopathic cervical dystonia, is diagnosed when no structural lesions or overt pathological abnormalities of the basal ganglia are detected. This form represents the majority of cases encountered in clinical practice and is increasingly understood as a disorder with a strong genetic component. Advances in molecular genetics have led to the identification of approximately twenty five distinct genetic forms of dystonia, supporting the concept that inherited susceptibility plays a significant role in disease development. Although neuroimaging studies are typically unremarkable, functional abnormalities in motor control circuits are believed to contribute to the abnormal muscle activation patterns observed in affected individuals. Secondary, cervical dystonia, in contrast, arises as a consequence of an identifiable external or pathological factor. This form may develop following physical trauma to the head or neck, exposure to certain medications, particularly dopamine receptor blocking agents, or as a complication of neurological disease. In some cases, secondary dystonia is associated with structural brain lesions, metabolic disorders, or infections affecting the central nervous system. The clinical presentation of secondary cervical dystonia may resemble that of the primary form; however, its etiology is directly linked to a known trigger. Differentiating between primary and secondary cervical dystonia is essential, as it has important implications for diagnostic evaluation, management strategies, and prognosis [10][11].

Epidemiology

The epidemiology of torticollis reflects its heterogeneous etiological background and varied clinical presentation across different populations. Epidemiological data indicate that approximately ten to twenty percent of torticollis cases are associated with trauma, while the majority are classified as idiopathic in origin. Posttraumatic cervical dystonia typically manifests shortly after injury, often within days, suggesting a direct relationship between mechanical insult and neuromuscular dysfunction. In contrast, delayed onset posttraumatic forms have been documented, with symptoms emerging between three and twelve months following the initial injury, indicating a more complex pathophysiological process involving central motor control mechanisms. From a clinical perspective, torticollis rarely presents as a single isolated movement pattern. Instead, it commonly involves a combination of abnormal head and neck movements. Rotational torticollis, characterized by involuntary turning of the head to one side, represents the most frequently observed pattern. Laterocollis, involving lateral tilting of the head, is the second most common presentation. Retrocollis, defined by posterior extension of the neck, occurs less frequently, while anterocollis, marked by forward flexion of the head, is considered the rarest clinical subtype. These variations reflect differences in muscle involvement and neuromuscular activation patterns [8][10].

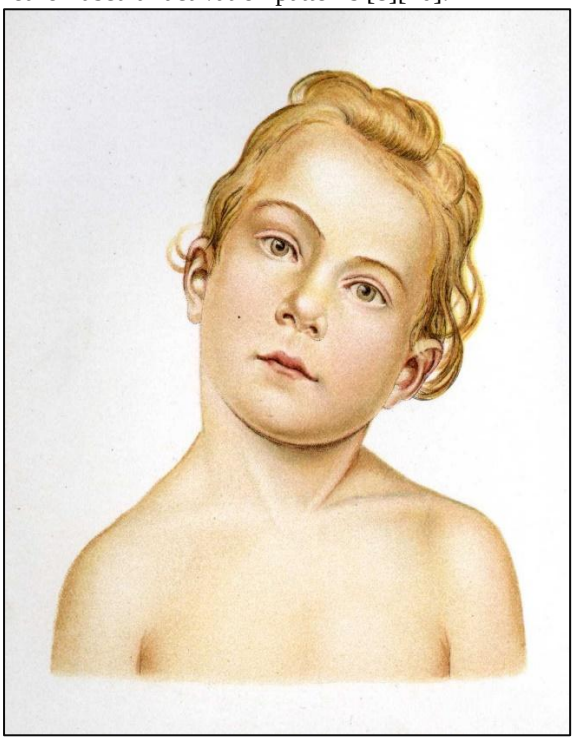

Fig. 2: Child with Torticollis.

A clear sex related difference has been consistently reported, with a female to male ratio of approximately two to one. This female predominance suggests a possible role of hormonal, genetic, or neurobiological factors in disease susceptibility. The onset of idiopathic cervical dystonia most commonly occurs during mid adulthood, particularly between the third and fifth decades of life. This age distribution has important implications for functional capacity, occupational performance, and quality of life. In contrast to adult onset forms, congenital muscular torticollis is relatively uncommon, affecting fewer than 0.4 percent of newborns. Despite its low prevalence, early identification is crucial, as delayed management may result in persistent musculoskeletal deformities and developmental complications. Collectively, these epidemiological patterns highlight the clinical significance of torticollis across the lifespan and underscore the need for timely diagnosis and appropriate intervention strategies [12][13].

History and Physical

Accurate diagnosis of torticollis requires a comprehensive clinical approach that integrates a detailed medical history with a systematic and thorough physical examination. This dual assessment is essential not only for confirming the presence of torticollis but also for identifying its underlying cause and guiding appropriate management strategies [9]. Because torticollis represents a clinical sign rather than a single disease entity, careful evaluation is necessary to distinguish benign conditions from those associated with serious pathology. The history of the present illness plays a central role in etiological assessment. Clinicians must first characterize the nature of the abnormal head posture, including its direction, severity, and variability over time. Associated symptoms provide important diagnostic clues. The presence of vomiting, fever, or signs of systemic infection may suggest inflammatory or infectious causes. Gait instability, balance disturbances, headaches, or visual changes raise concern for neurological or vestibular involvement. Emotional state should also be explored, as psychological stress may exacerbate or precipitate symptoms, particularly in functional or dystonic presentations. In neonatal and pediatric cases, detailed perinatal and family history is critical. Information regarding pregnancy, labor, and delivery, including birth trauma or prolonged positioning, should be obtained. The neonatal course should be reviewed for complications, and clinicians should inquire about known congenital conditions such as chromosomal abnormalities, systemic diseases, skeletal or visceral malformations, muscular fibrosis, or ocular disorders including strabismus. Family history may reveal inherited neuromuscular or movement disorders that increase diagnostic suspicion [9].

The temporal profile of symptoms further refines diagnostic reasoning. Acute onset may indicate trauma, infection, or drug related causes, whereas chronic or progressive symptoms suggest structural, neuromuscular, or degenerative etiologies. Distinguishing between permanent, transient, or paroxysmal manifestations helps differentiate dystonic disorders from episodic or reactive conditions. Recent medication changes are particularly relevant, as exposure to dopamine blocking agents or other neuroactive drugs may precipitate secondary cervical dystonia. The age at onset is a key discriminating factor, allowing clinicians to differentiate congenital torticollis, which presents at birth or during the neonatal period, from acquired forms that develop later in life. Events preceding symptom onset, including minor or major trauma, should always be explored. Pain assessment is a critical component of history taking. Painful torticollis often suggests inflammatory, infectious, bony, or acute muscular causes, whereas painless presentations are more typical of dystonic or congenital forms. When pain is present, its source must be considered, whether musculoskeletal, central nervous system related, post radiation, or referred from other anatomical structures. Physical examination provides essential confirmatory and supportive findings. Observation of overall posture and head alignment allows assessment of the constancy and pattern of head tilt or rotation. Clinicians should determine whether the abnormal posture is continuous or intermittent and identify any positions or maneuvers that relieve or worsen symptoms. Active and passive range of motion of the cervical spine should be evaluated carefully to detect restrictions or asymmetry. Palpation of the cervical spine and surrounding musculature may reveal localized tenderness, muscle hypertrophy, fibrosis, or spasm. These findings help differentiate muscular from skeletal or neurological causes [2][1][9].

In classic presentations, the diagnosis of torticollis is often straightforward, particularly when lateral head tilt is accompanied by contralateral neck rotation. However, diagnostic challenges may arise in atypical cases, such as patients presenting with rigid head positioning or those immobilized by emergency medical services following trauma, where movement patterns may be subtle or isolated [7][8][9]. Moderate to severe forms are usually evident on inspection alone, but subtle cases require meticulous examination. If torticollis in children is not identified and treated early, persistent abnormal posture may result in cosmetic deformity, discomfort, and long term consequences for cervical spine alignment and facial growth. These potential complications underscore the importance of early recognition through careful history taking and comprehensive physical assessment [2][14].

Evaluation

The evaluation of torticollis is primarily clinical, as the diagnosis can be established in most cases through careful assessment of the patient's presentation and a thorough physical examination. The pattern of head and neck deviation, associated symptoms, and findings on examination often provide sufficient information to identify the underlying cause. Nevertheless, diagnostic investigations should be selected on an individual basis and guided by clinical suspicion, particularly when atypical features or warning signs are present. Imaging and ancillary diagnostic studies play a supportive role when clinical findings suggest structural, neurological, infectious, or systemic pathology. Available diagnostic modalities include plain radiography, computed tomography, ultrasonography, and laboratory investigations such as blood analysis for metabolic or genetic abnormalities. The choice of investigation depends on patient age, symptom duration, severity, and the presence of associated systemic or neurological manifestations. In cases of spasmodic torticollis or cervical dystonia, pain is often unilateral and may

radiate to the shoulder or upper back, accompanied by marked muscle stiffness. Evaluation should include careful inspection of cervical alignment and the scapular girdle, with assessment of active cervical range of motion to identify movement limitation or pain triggered by muscle contraction. Passive cervical mobility must be evaluated with caution, particularly in the seated position, due to the potential risk of atlantoaxial subluxation. When clinical findings raise suspicion of structural abnormalities, radiographic imaging and CT scanning are indicated to identify fractures, vertebral malalignment, or joint instability [10][11].

Persistent or progressive torticollis warrants a more extensive evaluation. Particular attention should be paid to ocular and neurological signs, including strabismus, nystagmus, manifestations of raised intracranial pressure, or focal neurological deficits. The coexistence of persistent torticollis and recurrent vomiting represents a significant warning sign, necessitating a comprehensive neurological examination. In such cases, neuroimaging is essential to exclude intracranial pathology, including space occupying lesions or traumatic injury. Referral for ophthalmological assessment should be considered when abnormalities of extraocular movements are detected, as ocular disorders may contribute to compensatory head posturing. The presence of fever requires immediate consideration of infectious or inflammatory causes. Clinicians must exclude potential otolaryngological sources of infection, as well as osteoarticular involvement of the cervical spine. Physical examination should therefore include careful assessment for cervical lymphadenopathy, inspection of the oropharynx, and otoscopic evaluation. When clinical findings suggest a deep neck infection, such as a retropharyngeal abscess, CT imaging is indicated to confirm the diagnosis and guide management. Localized tenderness over the cervical vertebrae may indicate osteomyelitis or spondylodiscitis and should prompt further investigation. Laboratory testing serves an adjunctive role in the diagnostic process. Inflammatory markers, infection related parameters, and metabolic screening may support clinical suspicion but are rarely diagnostic in isolation. Advanced imaging modalities such as magnetic resonance imaging provide superior soft tissue and neurological detail and are particularly valuable in evaluating spinal cord involvement, intervertebral disc pathology, or intracranial abnormalities. Scintigraphy may also contribute to diagnosis in selected cases, especially when inflammatory or neoplastic processes are suspected. Together, these evaluation strategies allow for accurate diagnosis, exclusion of serious conditions, and formulation of an appropriate management plan for patients presenting with torticollis [2][9][11].

Treatment / Management

The management of cervical dystonia and torticollis is primarily focused on symptom reduction, functional improvement, and prevention of secondary complications, as no definitive curative treatment currently exists. Therapeutic strategies are therefore individualized and depend on the underlying etiology, severity of symptoms, patient age, and functional limitations. A multidisciplinary approach is often required to achieve optimal outcomes. Pharmacological management represents an important component of symptom control. Benzodiazepines are commonly prescribed to reduce muscle spasms and associated anxiety, particularly in patients experiencing pain or heightened muscle tone. Muscle relaxants may be used to decrease sustained muscular contractions and improve cervical mobility. Anticholinergic agents are also utilized in selected cases to modulate excessive cholinergic activity within the central nervous system, thereby reducing abnormal muscle activation. Although these medications may provide partial relief, their use is often limited by side effects, especially with long term administration. Botulinum toxin injection has emerged as one of the most effective therapeutic options for cervical dystonia. By inducing temporary chemodenervation of overactive muscles, botulinum toxin reduces involuntary contractions, alleviates pain, and improves head posture. This intervention is particularly beneficial in focal dystonia and is widely considered a first line treatment in moderate to severe cases [15]. Injections are typically repeated at regular intervals, with dosing and muscle selection tailored to the individual's pattern of muscle involvement.

Surgical intervention may be indicated in specific etiologies of torticollis, particularly when conservative measures fail or when structural abnormalities are identified. Corrective surgery may be required in cases of congenital muscular torticollis unresponsive to non-operative treatment, or when cervical spine deformities or neurological compression are present. Surgical options are carefully considered due to their invasive nature and potential risks. Conservative management remains the cornerstone of treatment for many patients, with physiotherapy playing a central and essential role. Physiotherapeutic interventions aim to restore normal muscle balance, improve range of motion, reduce pain, and enhance functional performance. Treatment strategies may include stretching of shortened muscles, strengthening of weakened antagonists, postural reeducation, manual therapy techniques, and neuromuscular retraining. Osteopathy may also be employed as an adjunctive approach to address musculoskeletal restrictions and improve overall cervical mobility [16][17]. Across the wide spectrum of torticollis presentations and etiologies, physiotherapy remains fundamental to long term management and functional recovery [1].

Differential Diagnosis

The differential diagnosis of torticollis is broad and includes several neurological, infectious, pharmacological, and systemic conditions that may present with abnormal head posture, neck stiffness, or involuntary movements. Accurate differentiation is essential to avoid misdiagnosis and to ensure appropriate management. Essential tremor should be considered, particularly when head tremor is a prominent feature. Unlike torticollis, essential tremor is typically rhythmic and may involve the hands, voice, or head without sustained abnormal neck posturing. Myasthenia gravis may mimic torticollis through fluctuating weakness of cervical muscles, often worsening with activity and improving with rest, and is usually accompanied by ocular or bulbar symptoms. Multiple sclerosis can present with abnormal neck posture secondary to spasticity, weakness, or central nervous system lesions affecting motor control pathways. Neuroleptic agent toxicity must also be considered, as exposure to dopamine blocking medications may lead to acute dystonic reactions or chronic movement disorders resembling cervical dystonia. Parkinson disease may present with rigidity and abnormal head and neck posture, but it is typically associated with bradykinesia, resting tremor, and postural instability. Infectious causes are critical considerations, particularly in acute and painful presentations. Peritonsillar and retropharyngeal abscesses can produce neck stiffness and torticollis due to inflammation, pain, and local mass effect. These conditions are often accompanied by fever, sore throat, dysphagia, and systemic signs of infection and require urgent evaluation. Spinal hematoma, although rare, may present with acute neck pain, restricted movement, and neurological deficits, particularly following trauma or anticoagulant use [1][3][7]. Conditions encountered in rehabilitation settings, such as cerebral palsy, may be associated with chronic abnormal neck posture due to spasticity and impaired motor control. Tardive dyskinesia, a late complication of long term neuroleptic use, can manifest with involuntary neck and facial movements that resemble dystonia but often coexist with oro facial dyskinesias. Wilson disease should be considered in younger patients presenting with dystonia, as copper metabolism disorders can cause movement abnormalities alongside hepatic and psychiatric manifestations.

Careful clinical assessment, supported by targeted investigations, is required to distinguish these conditions from torticollis and to guide appropriate therapeutic decisions [15].

Enhancing Healthcare Team Outcomes

Optimizing outcomes in patients with torticollis requires a coordinated, interprofessional healthcare approach that reflects the wide range of underlying etiologies and clinical presentations associated with this condition. Because torticollis may arise from musculoskeletal, neurological, infectious, congenital, or systemic causes, no single discipline can adequately address all aspects of diagnosis, treatment, and long term management. Effective collaboration among healthcare professionals is therefore essential to ensure accurate assessment, timely intervention, and comprehensive patient care. Depending on the identified etiology, referral to specialized services may be necessary. Physiotherapists play a central role in restoring cervical mobility, correcting postural abnormalities, and reducing pain through targeted therapeutic interventions. Orthopedic and plastic surgeons may be involved in cases requiring corrective procedures, particularly in congenital deformities or structural abnormalities unresponsive to conservative management. Neurologists and neurosurgeons are essential when torticollis is related to central nervous system pathology, cervical dystonia, or intracranial disease. Otorhinolaryngologists contribute to the management of cases associated with infections of the upper airway or deep neck spaces, as well as vestibular disorders contributing to abnormal head posture. Clinical outcomes vary considerably based on the underlying cause and the timeliness of intervention. While many patients respond favorably to conservative or pharmacological therapies, recurrence remains a common challenge across treatment modalities. Chronic torticollis may lead to persistent pain, visible deformity, and functional limitation, which can negatively impact self-image, social interaction, and overall quality of life. Prolonged physical impairment and cosmetic concerns may contribute to social withdrawal and psychological distress. In such cases, involvement of mental health professionals, including mental health nurses, can provide valuable support by addressing emotional well-being, coping strategies, and adherence to long term treatment plans [17].

An interprofessional team approach is fundamental to achieving optimal patient outcomes. Physicians and mid-level practitioners coordinate diagnostic evaluation and medical management, while nurses provide ongoing assessment, patient education, and monitoring of treatment response. Pharmacists play a key role in optimizing medication regimens, monitoring adverse effects, and supporting safe use of pharmacological therapies, particularly in long term management. Physical therapists contribute specialized expertise in movement rehabilitation, posture correction, and functional recovery. In selected cases, chiropractors may participate as part of a collaborative care plan focused on musculoskeletal alignment and symptom relief. Clear communication shared clinical goals, and mutual understanding of professional roles are critical elements of effective teamwork. By integrating expertise across disciplines, healthcare teams can deliver patient centered care that addresses not only the physical manifestations of torticollis but also its psychological and social consequences, ultimately

improving long term outcomes and patient satisfaction [17].

Conclusion:

Torticollis is a complex clinical condition that represents a physical manifestation of diverse underlying pathological processes rather than a single disease entity. Its wide etiological spectrum, ranging from benign congenital muscular shortening to serious neurological or infectious disorders, underscores the necessity of comprehensive clinical assessment. Careful history taking and thorough physical examination remain fundamental for identifying the pattern of abnormal posture, associated symptoms, and potential red flags requiring urgent investigation. The management of torticollis is inherently multidisciplinary and must be tailored to the individual patient. Conservative treatment, particularly physiotherapy, plays a pivotal role in restoring cervical mobility, correcting muscle imbalance, and preventing long-term deformity. Pharmacological interventions and botulinum toxin injections provide effective symptom control in cases of cervical dystonia, while surgical options are reserved for refractory or structurally driven conditions. Despite advances in therapeutic approaches, recurrence and chronicity remain significant challenges, with potential impacts on physical function, psychological well-being, and quality of life. Optimal outcomes are achieved through early diagnosis, timely intervention, and coordinated interprofessional collaboration involving physicians, physiotherapists, nurses, pharmacists, and relevant specialists. Such an approach not only addresses the physical manifestations of torticollis but also supports the psychosocial needs of affected individuals, ultimately improving long-term prognosis and patient satisfaction.

References:

1. Bleton JP. Physiotherapy of focal dystonia: a physiotherapist's personal experience. European journal of neurology. 2010 Jul:17 Suppl 1():107-12. doi: 10.1111/j.1468-1331.2010.03061.x.
2. Nucci P, Kushner BJ, Serafino M, Orzalesi N. A multi-disciplinary study of the ocular, orthopedic, and neurologic causes of abnormal head postures in children. American journal of ophthalmology. 2005 Jul:140(1):65-8
3. Lee JH, Cheng KL, Choi YJ, Baek JH. High-resolution Imaging of Neural Anatomy and Pathology of the Neck. Korean journal of radiology. 2017 Jan-Feb:18(1):180-193. doi: 10.3348/kjr.2017.18.1.180.
4. Kohan EJ,Wirth GA, Anatomy of the neck. Clinics in plastic surgery. 2014 Jan
5. van den Dool J, Visser B, Koelman JH, Engelbert RH, Tijssen MA. Long-Term Specialized Physical Therapy in Cervical Dystonia: Outcomes of a Randomized Controlled Trial. Archives of physical medicine and rehabilitation. 2019 Aug:100(8):1417-1425. doi: 10.1016/j.apmr.2019.01.013.
6. Garg M, Sridhar MS, Verma S, Bhadoria J. Unprecedented complication of odontoid regeneration after transoral odontoidectomy. Journal of craniovertebral junction & spine. 2018 Oct-Dec:9(4):280-282. doi: 10.4103/jcvjs.JCVJS_98_18.
7. Tomczak KK, Rosman NP. Torticollis. Journal of child neurology. 2013 Mar:28(3):365-78. doi: 10.1177/0883073812469294.
8. Per H,Canpolat M,Tümtürk A,Gumuş H,Gokoglu A,Yikilmaz A,Özmen S,Kaçar Bayram A,Poyrazoğlu HG,Kumandas S,Kurtsoy A, Different etiologies of acquired torticollis in childhood. Child's nervous system : ChNS : official journal of the International Society for Pediatric Neurosurgery. 2014 Mar
9. Natarajan A, Yassa JG, Burke DP, Fernandes JA. Not all cases of neck pain with/without torticollis are benign: unusual presentations in a paediatric accident and emergency department. Emergency medicine journal : EMJ. 2005 Sep:22(9):646-9
10. De Pauw J, Mercelis R, Hallemans A, Michiels S, Truijen S, Cras P, De Hertogh W. Cervical sensorimotor control in idiopathic cervical dystonia: A cross-sectional study. Brain and behavior. 2017 Sep:7(9):e00735. doi: 10.1002/brb3.735.
11. Skogseid IM. Dystonia--new advances in classification, genetics, pathophysiology and treatment. Acta neurologica Scandinavica. Supplementum. 2014:(198):13-9. doi: 10.1111/ane.12231.
12. Kaplan SL, Dole RL, Schreiber J. Uptake of the Congenital Muscular Torticollis Clinical Practice Guideline Into Pediatric Practice. Pediatric physical therapy : the official publication of the Section on Pediatrics of the American Physical Therapy Association. 2017 Oct:29(4):307-313. doi: 10.1097/PEP.0000000000000444.
13. Pharisa C, Lutz N, Roback MG, Gehri M. Neck complaints in the pediatric emergency department: a consecutive case series of 170 children. Pediatric emergency care. 2009 Dec:25(12):823-6. doi: 10.1097/PEC.0b013e3181c06062.
14. Carenzio G, Carlisi E, Morani I, Tinelli C, Barak M, Bejor M, Dalla Toffola E. Early rehabilitation treatment in newborns with congenital muscular torticollis. European journal of physical and rehabilitation medicine. 2015 Oct:51(5):539-45
15. Dressler D, Kupsch A, Seitzinger A, Paus S. The dystonia discomfort scale (DDS): a novel instrument to monitor the temporal profile of botulinum toxin therapy in cervical dystonia.

European journal of neurology. 2014 Mar:21(3):459-62. doi: 10.1111/ene.12330.

16. van den Dool J, Visser B, Koelman JH, Engelbert RH, Tijssen MA. Cervical dystonia: effectiveness of a standardized physical therapy program; study design and protocol of a single blind randomized controlled trial. BMC neurology. 2013 Jul 15:13():85. doi: 10.1186/1471-2377-13-85.
17. Lim KS, Shim JS, Lee YS. Is sternocleidomastoid muscle release effective in adults with neglected congenital muscular torticollis? Clinical orthopaedics and related research. 2014 Apr:472(4):1271-8. doi: 10.1007/s11999-013-3388-6