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Review Article:

Cervical Spondylosis (Waja ul Unuq): An Integrative Review of Unani and Modern Concepts

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Abstract :

Cervical spondylosis is a chronic degenerative disorder of the cervical spine and an important cause of neck pain, disability, radiculopathy, and myelopathy. It involves progressive changes in intervertebral discs, vertebral bodies, facet and uncovertebral joints, ligaments, and adjacent soft tissues. Modern medicine considers age-related degeneration, biomechanical stress, occupational factors, trauma, posture, smoking, metabolic factors, and genetic predisposition among important contributors. In Unani medicine, the condition is understood within the broader framework of Waja ul Mafasil and, when involving the cervical region, is described as Waja ul Unuq. Classical explanations emphasize Su-e-Mizaj, accumulation of Mawad-e-Fasida, and predominance of Balgham. This review summarizes the historical background, Unani concept and pathogenesis, modern etiopathogenesis, clinical manifestations, diagnosis, and therapeutic approaches. It also compares the two perspectives and identifies areas where preventive, rehabilitative, and regimenal approaches may complement contemporary care. An integrative understanding may support patient-centred management while encouraging scientific evaluation of traditional interventions.

Keywords: Cervical Spondylosis; Waja ul Unuq; Waja ul Mafasil; Unani Medicine; Neck Pain; Cervical Radiculopathy; Cervical Myelopathy.

Introduction

Cervical spondylosis is a common degenerative disorder affecting the cervical spine and is a major contributor to chronic neck pain, neurological dysfunction, and impaired quality of life. The cervical spine combines mobility with the need to support and protect the head and spinal cord, making it particularly vulnerable to cumulative mechanical and age-related changes. Degeneration may involve the intervertebral discs, vertebral bodies, uncovertebral and facet joints, and spinal ligaments, with subsequent neural compression in advanced disease.[1–2]

Radiological degeneration increases with age and may be present even in asymptomatic individuals. Changes have been reported in approximately 25% of individuals below 40 years, 50% above 40 years, and nearly 85% above 60 years.[3–5] The disorder therefore has substantial clinical and socioeconomic importance because of pain, reduced function, work absenteeism, and long-term disability.[6–7]

Unani medicine has discussed painful musculoskeletal and joint disorders for centuries. Although the exact modern term cervical spondylosis is absent from

classical texts, cervical disease can be considered within Waja ul Mafasil, with Waja ul Unuq denoting pain affecting the neck region.[8–11] This review brings together the two perspectives without assuming that their explanatory models are identical.

Historical Background

Early descriptions of spinal structure and injury occur in Egyptian medical papyri and classical Greek medicine. Hippocrates discussed spinal anatomy, deformities, dislocations, fractures, and traction techniques.[12–13] Galen further described vertebral architecture and the balance between mobility and stability.[14–15] Later, Vesalius contributed detailed anatomical descriptions of the intervertebral disc, while Rhazes and Al-Zahrawi expanded the understanding and treatment of spinal disorders.[16–18]

Among Unani scholars, Ibn Sina (Avicenna) described vertebral anatomy, spinal nerves, muscles, ligaments, and their functions in Al-Qanoon fi al-Tibb.[19–20] In modern medicine, the term spondylosis was introduced in 1926, and subsequent work clarified disc and neural pathology. Development of CT, MRI, and modern spinal instrumentation substantially improved diagnosis and management.[21–23]

Unani Concept of Waja ul Unuq

Waja ul Unuq is not explicitly identified as a separate disease entity in classical Unani literature. Rather, it is interpreted within Waja ul Mafasil, a broad category of painful joint disorders. When the cervical vertebrae (Fiqrat al-Unuq) are involved and the clinical picture is dominated by neck pain and restricted movement, the condition may be described as Waja ul Unuq.[8–11] The term combines Waja (pain) and Unuq (neck).

Unani pathology is based on balance among the four Akhlat: Dam, Balgham, Safra, and Sauda. Disease may result from qualitative or quantitative disturbance of these humors. Waja ul Mafasil is broadly classified as Waja ul Mafasil Sada, related primarily to derangement of temperament, and Waja ul Mafasil Maddi, associated with accumulation of morbid matter. When Balgham predominates, the condition is termed Waja ul Mafasil Balghami.[11]

Classical explanations identify Balgham as an important pathogenic factor. Ibn Sina distinguished active and facilitating causes, including Su-e-Mizaj and morbid humoral accumulation. Jurjani described primary and secondary causes, including excessive joint mobility, impaired elimination, digestive disturbances, sedentary lifestyle, cold exposure, irregular diet, and inadequate physical activity.[24–26] Environmental cold and cold, moist foods were considered capable of increasing Rutubat-e-Balghamiya and contributing to pain and stiffness.[8,24,26]

Modern Etiopathogenesis

Modern medicine considers cervical spondylosis predominantly an age-related degenerative process, modified by mechanical and environmental factors. Important risk factors include aging, occupational stress, repetitive microtrauma, poor posture, smoking, metabolic disorders, and genetic predisposition.[27–30]

Degeneration begins with biochemical and structural changes within the intervertebral disc. Loss of proteoglycans causes dehydration of the nucleus pulposus, reduced elasticity, and loss of disc height.[31–32] Weakening of the annulus may lead to bulging or herniation.[33–34] Disc-space narrowing changes load distribution and increases stress on facet and uncovertebral joints, promoting osteophyte formation, particularly at mobile C5–C6 and C6–C7 levels.[33,35] Ligamentum flavum hypertrophy and ossification of the posterior longitudinal ligament may further narrow the spinal canal.[36–38]

The degenerative cascade has been described in three stages: dysfunction, instability, and stabilization.[39] Initially, biochemical degeneration predominates; later, disc collapse and abnormal movement develop; finally, osteophyte formation and stabilization occur. Progressive narrowing may compress nerve roots or the spinal cord, producing cervical radiculopathy or cervical spondylotic myelopathy.[2,40]

Clinical Manifestations

Unani Description[41]

Waja ul Unuq generally presents gradually with neck pain, stiffness, heaviness, restricted movement, and discomfort that may worsen with cold exposure.[24,42–44] Unani descriptions recognize Damawi, Safravi, Balghami, Saudavi, Reehi, and Murakkab varieties; the Balghami type is described as common and associated with mild persistent pain, absence of local warmth, softness, and aggravation in cold weather.[43,45] Advanced disease may be associated with weakness or sensory symptoms in the upper limbs.

Modern Description[46]

Modern clinical presentation is commonly grouped into axial neck pain, cervical radiculopathy, and cervical myelopathy.[2] Axial pain is the most frequent presentation and may include chronic neck pain, stiffness, muscle fatigue, restricted movement, shoulder or scapular pain, and occipital headache.[47–48]

Cervical radiculopathy results from nerve-root compression or inflammation and produces radiating upper-limb pain, paresthesia, numbness, weakness, or reduced reflexes. C6 and C7 roots are frequently involved: C6 symptoms may extend toward the thumb and index finger, while C7 symptoms commonly involve the middle finger and triceps weakness.[1–2,49]

Cervical spondylotic myelopathy is the most serious clinical manifestation and results from chronic spinal cord compression. Features include gait disturbance, limb weakness, spasticity, sensory impairment, reduced hand dexterity, and, in advanced cases, bladder dysfunction. Hoffmann, Babinski, and Lhermitte signs may be present.[2,49–50]

Diagnosis and Investigations

Unani Approach[41]

Unani assessment emphasizes detailed history and examination, including Mizaj, humoral status, dietary habits, lifestyle, environmental exposure, digestive function, and aggravating or relieving factors. Clinical features such as pain, stiffness, restricted movement, aggravation by cold, relief with warmth, and constitutional characteristics help in assessing the dominant pattern.[8,24–25,43,45]

Modern Approach[46]

Modern diagnosis combines clinical and neurological assessment with appropriate imaging. Examination should include cervical movements, muscle strength, sensation, reflexes, and gait. Spurling's test may reproduce radicular symptoms, while cervical distraction and shoulder-abduction relief may support a diagnosis of cervical radiculopathy. Neurological signs such as hyperreflexia, spasticity, Hoffmann or Babinski responses, and gait abnormalities warrant careful assessment for myelopathy.[2,50]

Plain radiography may demonstrate disc-space reduction, osteophytes, endplate sclerosis, loss of cervical lordosis, and canal narrowing. MRI provides detailed visualization of discs, nerve roots, spinal cord, ligaments, and soft tissues and is particularly useful for disc herniation, canal stenosis, cord compression, and myelopathic changes. CT is useful for bony anatomy, osteophytes, ligament ossification, and congenital stenosis. CT myelography may be used when MRI is contraindicated or unavailable. EMG can help distinguish radiculopathy from peripheral neuropathies and other neurological disorders.[2,51–56]

Management

Unani Management[41]

Unani management follows Usool-e-Ilaj directed toward removing causes, correcting temperament, evacuating or diverting morbid matter, and strengthening affected structures.[26,57] The principal objectives include Izala-e-Sabab, Tadeel-e-Mizaj, Tanqiya-e-Mawad, Imala-e-Mawad, and Taqwiyat-e-Uzwa. Lifestyle advice includes avoiding excessive cold exposure, maintaining warmth, taking light and nutritious food, preventing constipation, and avoiding difficult-to-digest foods and other individually identified aggravating factors.[44,58]

Ilaj bit Tadbeer forms an important component of traditional management. Hijama (cupping), Dalk (massage), Takmeed (fomentation), selected use of Fasd (venesection), and topical preparations such as Tila, Zimad, and Roghaniyat are described for musculoskeletal disorders. These therapies are traditionally intended to reduce pain, improve circulation or mobility, and address the presumed pathological material.[42,58–60] Their efficacy and safety for cervical spondylosis should be evaluated through appropriately designed clinical studies.

Modern Conservative Management[46]

Modern management aims to control pain, improve function, and prevent neurological deterioration.[27] Conservative care may include pharmacological treatment, physiotherapy, exercise, postural correction, and selected physical modalities. NSAIDs are commonly used for pain, while muscle relaxants may be prescribed for short-term spasm. In selected severe cases, other analgesic or injection-based approaches may be considered.[53,61–63]

Physiotherapy programs may include isometric and strengthening exercises, stretching, proprioceptive training, postural correction, and thermal therapy. Regular exercise can improve cervical muscle function, flexibility, and pain.[50,64] Ultrasound, traction, TENS, heat or cold therapy, manual mobilization, and acupuncture may provide symptomatic relief in selected patients.[28,61,64] Soft cervical collars may be useful during acute exacerbations but prolonged use is discouraged because of weakness and dependency.[61]

Surgical Management[65]

Surgery is generally reserved for progressive neurological deficits, severe myelopathy, or persistent symptoms that do not respond adequately to conservative treatment.[52] Procedures may include anterior cervical discectomy and fusion, corpectomy, cervical disc replacement, laminoplasty, laminectomy, and foraminotomy. Choice depends on the level and severity of pathology, spinal alignment, number of affected levels, and neurological status.[66]

Comparative Unani and Modern Perspective

The theoretical foundations of Unani and modern medicine differ, but both recognize cervical disease as multifactorial and influenced by age, lifestyle, mechanical stress, posture, occupational factors, and environmental influences. Unani medicine interprets disease through Mizaj and humoral imbalance, particularly Balgham and accumulation of morbid matter, whereas modern medicine describes disc degeneration, dehydration, altered biomechanics, osteophyte formation, and neural compression.[1–2,8,11,25,40]

Both approaches emphasize prevention, early recognition, lifestyle modification, symptom control,

and restoration of function. There are practical parallels between Unani regimenal therapies and modern rehabilitation in their goals of reducing pain, improving movement, and supporting physical function. However, similarities in clinical aims should not be taken as proof that traditional pathological concepts are equivalent to modern mechanisms. Scientific evaluation of individual Unani interventions remains necessary.

An integrative model may therefore be considered in which established modern diagnostic and neurological assessment remains central, while appropriately selected Unani dietary, lifestyle, and regimenal approaches are evaluated as complementary measures. Such integration should be evidence-based, patient-centred, and attentive to safety, contraindications, and the severity of neurological involvement.

Conclusion

Cervical spondylosis is a multifactorial degenerative disorder with substantial effects on pain, mobility, neurological function, and quality of life. Unani medicine conceptualizes the condition as Waja ul Unuq within Waja ul Mafasil, emphasizing Su-e-Mizaj, humoral imbalance, and morbid matter, particularly Balgham. Modern medicine explains the disorder through age-related disc and joint degeneration, biomechanical stress, osteophyte formation, and possible neural compression.

Despite differences in theoretical framework, both systems emphasize prevention, lifestyle modification, early assessment, and multimodal management. Unani regimenal approaches such as Hijama, Dalk, and Takmeed may have a potential complementary role, but their clinical efficacy and safety should be established through rigorous studies. Further experimental and clinical research is needed to develop evidence-based integrative strategies for cervical spondylosis.

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