'Cervicogenic Headache & the Role of C1-3 Cervical Afferents in Primary Headache'

Foundation Course Online

Introduction and 8 Modules

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Structure of the Course

Introduction:

While there is ongoing debate within the medical model of headache as to whether cervicogenic headache exists, the concept of cervicogenic headache is universally accepted within manual therapy circles. Notwithstanding this debate, to just consider cervicogenic headache (CGH), i.e., a noxious disturbance in the upper cervical spine misinterpreted as residing in trigeminal territory, does a disservice to the role of cervical afferents in primary (tension/migraine/cluster etc.) headache conditions. This course challenges traditionally held beliefs and will change paradigms about the role of upper cervicalafferents in primary headache.

This course is delivered by 'state of the art' technology and populated extensively with Dean's widely acclaimed, sophisticated videos. The course is based on Dean's unparalleled clinical experience (see CV), his groundbreaking Ph.D. findings and contemporary research, focusing on theassessment and management of CGH and identifying relevant cervicogenic dysfunction (noxious cervical afferents) in primary headache.

Module 1: Framing Headache & Migraine: The Medical Model of Headache (ICHD-3)

Unlike in other courses where the cumbersome International Classification of Headache Disorders-3 (ICHD-3) is regurgitated and described in great detail, Module 1 summarises the ICHD-3 and details the ICHD-3 perspective of CGH. This perspective and the value of anaesthetic blocks and diagnostic criteria are then challenged vigorously.

For, e.g., whilst CGH can be unilateral and side-locked, this key diagnostic criterion is erroneous; alternating, unilaterality confirms CGH! Another key diagnostic criterion is that reproduction of typical head pain when examining C0-C3 confirms CGH – wrong! This will happen ***IF*** central sensitization (CS) is driven 'centrally' (CCS); the case for ensuing resolution

(as the technique is sustained) confirming C1-3 relevancy in primary headache will be presented in Module 2.

Aims of Module 1:

- Summarise the ICHD-3
- Summarise the ICHD-3 perspective of CGH
- Challenge the ICHD-3 perspective of CGH

Module 2: Re-Framing Headache and Migraine: Contemporary Research

'Reframing Headache and Migraine' challenges the ICHD-3.

While a diagnosis may be important for research purposes, Module 2 proposes that a diagnosis is not important in the clinical setting. After-all, a primary headache diagnosis is based on a set of (often shared between the different primary headache forms) unvalidated signs and symptoms, not on pathophysiology, a diagnosis is just a label, and… an opinion.

This module discusses contemporary research that supports the various forms of primary headache sharing a common pathophysiology – a sensitised trigemino cervical complex (TCC) – the pivotal question that needs to be answered is… what is sensitising the TCC?

Furthermore, despite research surrounding 'centrally' driven central sensitisation (CCS) being equivocal, there is an assumption that this is the case. This module challenges this assumption and submits justification for 'peripherally' (C1-3) driven CS (PCS).

Finally, whilst reproduction of head pain is recognised as a key diagnostic criterion, it does not confirm cervical relevancy. The case for reproduction ***and*** resolution of typical head pain, as the technique is sustained, will be proposed as the most powerful clinical tool confirming cervical relevancy in primary headache conditions.

Aims of Module 2:

- Challenge the ICHD-3
- Present contemporary pathophysiology of migraine (and primary headache)
- Challenge the assumption that 'centrally' driven central sensitization is responsible for primary headache
- Challenge reproduction of head pain as a key diagnostic criterion of cervical relevancy in headache and migraine

Together, Modules 1 and 2, with sophisticated videos and animations explaining the TCC, sensitisation of the TCC and the previously unrecognised pattern of musculoskeletal misbehavior leading to alternating headache, challenge traditionally held beliefs and teaching. Modules 1 and 2 will change your paradigm around the CGH and the role of cervical afferents in primary headache.

Please Note: Modules 1 and 2 are available to all interested health practitioners.

Module 3: Anatomy and Biomechanics of C0-C3: What You Need to Know

Not only does Module 3 revise anatomy and biomechanics of C0-C3 (including the craniovertebral ligaments) but will challenge the reported range of rotation at C1-2 and advance your knowledge of the critical, 'unique' C2-3 segment.

The omnipresent asymmetry in the C0-C3 region challenges the validity of spinal palpation. Geometric symmetry is rare; perceived restriction may well be because of anatomical asymmetry. The implications of asymmetry will be discussed in the context of 'comparable signs' versus 'symptom reproduction and resolution'.

Contemporary research will also be presented to support the hypothesis that alternating, unilateral head pain is underpinned by asymmetrical distribution pressure within the C2-3 disc; this will debunk your perspective of cervical discs, specifically the C2-3 disc.

Aims of Module 3:

- Revise and update relevant anatomy
- Revise and update relevant biomechanics
- Discuss implications of Asymmetry
- Dispel traditional traditional perspectives of cervical (C2-3) discs

Module 4: Interpretation of Routine Radiological Imaging

While it is recognised that radiological imaging is not particularly useful when investigating headache, radiological imaging is crucial following head/neck trauma and in some medical conditions, e.g., rheumatoid arthritis.

Module 4 introduces and/or reviews routine views and interpretation of the same.

The Aims of Module 4:

- Introduce and/review routine views
- Discussion of the interpretation of routine views

Module 5: The Objective Examination: Crafting and Executing a Discerning, Optimal Physical Examination

From a skilled Subjective Examination (SE), it is possible to predict relevant Objective Examination (OE) findings implicating upper cervical dysfunction. This can only be done if there is prior knowledge of relevant OE findings. Therefore, Module 5, The OE, precedes

Module 6, the SE.

The OE of the Watson Headache® Approach is gentle and unique. Feedback over the past 25 years indicates that the OE is the most accurate and specific physical examination of the upper cervical segments for headache and migraine.

This module includes numerous videos of techniques, including 3D animations, patient/therapist position and from a headcam to demonstrate thumb position.

Techniques include:

Cervical retraction: a powerful tool particularly for episodic headache; there is so much information that can be gained by performing generalised retraction and then repeating with C2 blocked.

Stability tests: Reproduction of cardinal signs of cord compression is not necessary to confirm instability. The tests used minimise the impact on potentially damaged structures and can be done quickly, safely and effectively.

Assessment and correction of the C2 position (Battle 1 – B1): is critical. Following a simple 3-step, palpation and clinical reasoning process, the C2 position can be established easily – forget palpating the laminae…

and then… using gentle sustained thumb pressures

7 techniques to determine which segment/s are referring to the head (Battle 2 – B2): the palpation/clinical reasoning process involved in each technique ensures that there is no guesswork; the exact referring segment can be readily identified.

The diagnostic accuracy of the Watson Headache® Approach's OE underpins successful management.

Reproduction and resolution of typical headache when stressing individual upper cervical segments is a fundamental and founding (early 1990s) tenet of the Watson Headache® Approach. In 2014, the results of a seminal study were published in which reproduction and resolution of typical head pain in migraineurs resulted in desensitisation of the (sensitised) trigeminocervical complex (the underlying disorder in migraine and other forms of primary headache). In essence, this confirms a (cervical) peripheral driver for central sensitization in migraine, i.e., relevancy of noxious C1-3 afferents. This is the first time a manual cervical intervention has been shown to positively affect the core of the migraine process.

The Aims of Module 5:

- Advance your knowledge of Retraction as an assessment technique

- To perform stability tests asymptomatically with confidence, safely, and effectively
- Introduce a novel 3-step palpation/clinical reasoning process to confidently establish the C2 position
- Confidently identifying head pain referring segments

Module 6: 15 years of Migraine… where do you start? The Art of the Subjective Examination

The Subjective Examination (SE) is arguably more important in headache than in other musculoskeletal (MSK) disorders because typically there are on reproducible objective signs (as there are in other MSK conditions) to reassess; there is increased reliance on subjective features. Furthermore, many patients will have a long history, which *almost* invariably means that numerous investigations have been performed, as responsible clinicians recognising life-threatening red flag symptoms is crucial.

Some would say that the SE/History is 'King' in headache medicine (I agree – it is!).

The average length of history of patients is approximately 15 years, sometimes 30-50 years. In this situation, to approach with 'tell me about your headache' invites a 'tidal wave' of information, tantamount to going into the jungle without a plan, a map – what is needed is a compass – Module 6 provides that compass.

Module 6 details the seminal information required to optimise your management and an algorithm to ensure that this information is gathered *collaboratively*, in a timely, empathetically and responsibly manner.

The Aims of Module 6:

- Detail seminal information required to optimise OE and management
- Introduce an algorithm to assemble seminal information
- Review 'Red Flags' in headache to assist recognition of and referring on if necessary

Module 7: Treatment: Tailoring and Executing, Discerning, Optimal Management

Management of omnipresent MSK misbehavior is relatively uncomplicated; this does not mean that it is easy!

There are literally only two issues to address – Battle 1 (B1) and Battle 2 (B2). B1 involves correction of the relevant rotation of C2; B2 involves identifying the referring segment/s and rendering referral free.

Module 5 introduced the assessment techniques used in the OE. These techniques slide

seamlessly into treatment techniques. However, anyone can learn a technique, and success depends on knowing optimal combinations of, and when, and when not to use, specific techniques. Module 7 details the appropriate incorporation of techniques, embedding them in a unique, innovative clinical reasoning process – this is crucial.

Depending on the presentation, B1 is more important than B2; in others, B2 becomes the focus. Module 7 introduces the (finite) presentations that will be encountered, how to recognise them, and an algorithm to manage appropriately. For example, managing unilateral side-locked headache is totally different from equally alternating unilateral headache and different again from constant, unremitting headache.

The Aims of Module 7:

- Reconstruct the assessment techniques as treatment techniques
- Recognition of the role of B1 and B2 in various presentations and which techniques are appropriate.
- Introduce and detail the clinical reasoning behind the approaches to different headache and migraine and nonheadache presentations

Module 8: Bringing it all together

The aim of this module is to integrate modules 5, 6 and 7. You will see Dean with an unseen patient during an initial consultation, i.e. SE, OE and treatment.

Recognising that this will only be one of numerous presentations you may encounter and that optimal management relies heavily on recognition of clinical patterns, Module 8 also provides algorithms for the (finite) presentations that will be encountered – how to recognise and manage them appropriately and optimally.