

# A CranioSacral Therapy perspective on migraine and complex headaches

Migraine and headaches can be a mysterious and often complex condition for therapists to treat, not to mention a highly distressing experience for the client. Erin Riley presents a different perspective on these issues.

**I**n my private practice I am seeing more and more clients presenting with complex migraine and headache complaints. This impacts not only their physical wellbeing but also has a multi-layered influence on their emotional wellbeing and capacity to function at their full potential in the world. According to recent statistics approximately two million Australians are suffering from migraine with a further estimated seven million likely to experience tension-type headaches. In fact, more Australians are suffering from migraines than from diabetes, asthma or coronary heart disease.<sup>1</sup>

As a manual therapist, it can be overwhelming to know where to start when a client presents to us with migraine or complex type headaches. Seldom is there only one factor; most of the time there are a multitude of factors contributing to each client's unique constellation of symptoms. Before we look further at how CranioSacral Therapy can help, it is useful to have a working knowledge of the common symptom profile and differential diagnoses between the four most common types of headaches: migraine with aura, migraine without aura, tension-type headache, and cluster headache. According to the International Headache Society's International Classification of Headache Disorders, these four types of headaches are classified as primary headaches.<sup>2</sup>

## Symptom presentation

**Migraine** is a headache that will last between four and 72 hours and is classified by at least two of the following symptoms being present: one sided, moderate to severe pain level, throbbing and/or aggravated by movement. There must also be at least one of

the following associated symptoms: nausea, vomiting, photophobia or phonophobia. A variety of other symptoms may or may not be present including osmophobia, aura, difficulty concentrating and varied neurological symptoms.<sup>1,2</sup>

**Tension-type headaches** are classified as headaches that present with a dull and persistent pain of mild to moderate intensity that is usually felt on both sides of the head and/or neck. They can present as a constant, tight or heavy pressure sensation on or around the head. Neck movements (both active and passive) can be painful and restricted due to muscular spasm.<sup>1,2</sup>

**Cluster headaches** are an extraordinarily painful and (fortunately) rare type of headache affecting five times as many men as women. Even so, the population of people experiencing cluster headaches is small. In Australia there would only be a few hundred to a thousand people in each capital city. Cluster headaches are characterised by excruciating, boring or burning pain (much worse than a migraine) localised around one eye, usually with associated watering of the eye and/or drooping of the eyelid. The pain may radiate to the forehead, cheek, temple or upper jaw. Although this may initially sound like a migraine presentation, cluster headaches are differentiated by their shorter painful episode (usually in the vicinity of 20 minutes to one hour) and the attacks are very likely to occur in the early hours of the morning. As the name suggests, people suffering from cluster headaches experience the symptoms in clusters where they may have several attacks a day for days or weeks at a time and then go into remission for months or years.<sup>1,2</sup>

One of the most clinically relevant tools

manual therapists can utilise is paying attention and observing clients closely. They will give many clues about how to help them without consciously being aware that they are doing so. In the case of complex headache presentations, clients are very likely to give clues as to the type of headache they are presenting with through their hand gestures. Clients will generally use their whole hand on one-side of the head to demonstrate the region of pain for a migraine, will usually use one finger to point to the site of pain around the eye in a cluster headache and will usually use both hands to demonstrate the more diffuse distribution of pain in a tension-type headache.<sup>3</sup>

## Anatomical and physiological basis

Historically migraines have been thought of as a disorder of vascular spasm. However, in my clinical experience and in line with recent clinical research, migraine seems to present more consistently as an issue of sensory overwhelm, central nervous system sensitisation and decreased ability to modulate sensory input/output.<sup>4,5</sup> In contrast, tension-type headaches tend to be a manifestation of postural strain and muscular/fascial dysfunction. Cluster headaches remain somewhat of an enigma in terms of anatomical and physiological basis, however it is generally considered a disorder of 'an internal clock' in the hypothalamus.<sup>3</sup>

It is my experience that based on the anatomy and physiology as well as the functional manifestation of migraine and complex headaches CranioSacral Therapy is well placed to effectively treat these disorders. In order to develop a context for this particular approach, let us first look briefly at the history



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and development of Upledger CranioSacral Therapy.

### **History of Upledger CranioSacral Therapy**

CranioSacral Therapy as it is now taught emerged in the mid 1970s as a result of research conducted at Michigan State University (MSU) by Dr John E Upledger (creator of CranioSacral Therapy and founder of the Upledger Institute International) and Dr Ernest Retzlaff (Neurophysiologist and Histologist). Earlier roots of CranioSacral Therapy can be traced back to the osteopathic medicine of AT Still from the late 1800s and the ideas of cranial osteopath William Garner Sutherland in the early 1900s.<sup>6,7</sup>

Even until recent times it was the general consensus that the bones of the cranium were fused from mid-childhood. However Sutherland spent much time pondering the minute anatomical details of a disarticulated skull in the context of AT Still's teachings that structure and function are interrelated. As a result of these ponderings, Sutherland was the first to palpate the 'primary respiration' a rhythmical expansion and contraction of the cranium and presented ideas on the origin of this motion. Fast-forward to the mid 1970s where Dr Upledger expanded further on these ideas after witnessing the rhythmical motion of the dural membranes surrounding the spinal cord during a cervical neurosurgical procedure on a patient.<sup>8</sup>

Through their work at MSU, Dr Upledger and Dr Retzlaff were able to produce histological slides of the cranial sutures that showed the sutures contained collagen and elastin fibres as well as nerves and blood vessels, proving that the sutures were not calcified as previously believed.

Further research was done at MSU to demonstrate the rhythmical motion of the cranial bones. A small antenna was mounted on each parietal bone of a live monkey. A radio wave was then broadcast between the two antennas, the frequency of which varied cyclically. Through this setup Dr Upledger and Dr Retzlaff were able to record a craniosacral

motion that was different to that of the heart rate and that of the breathing rate.<sup>9</sup>

Researchers continue to study this rhythm and more recent studies have postulated that it is related to the Traube-Hering-Mayer oscillation produced by fluctuating blood volumes.<sup>10,11</sup> Researches have said, 'the THM oscillation may well represent one aspect of the complex clinical arena of Sutherland's discovery. It may explain the rate and rhythm of the Cranial Rhythmic Impulse and offer insight into the physiologic mechanism of the Primary Respiration Mechanism'.<sup>10</sup>

### **CranioSacral Therapy technique**

Sutherland developed the first cranial osteopathic techniques for releasing compression of the cranial sutures. Dr Upledger expanded on Sutherland's early sutural techniques to encompass working with the intracranial membranes and dural system surrounding the brain and spinal cord as well as the cerebrospinal fluid. CranioSacral Therapy as developed by Dr Upledger is a gentle, non-invasive modality that seeks to find and treat restrictions throughout the body systems. Restrictions within the craniosacral system can lead to tension patterns and restrictions which affect the functioning of all bodily systems including the musculoskeletal, endocrine, cardio-respiratory, gastrointestinal, lymphatic, immune and reproductive systems.

CranioSacral therapists use a variety of assessment tools to globally assess the body and find the 'primary' restrictions or 'root causes' of issues. Over time the body may compensate around particular restrictions in order to continue functioning well. When the body can no longer compensate or the restrictions are so great that they overcome the body's compensatory strategies, symptoms occur.

### **CranioSacral Therapy for migraine and headache**

The positive impact that CranioSacral Therapy will have on the treatment of migraines and complex headaches is many and varied, however it will always come down to

the unique needs of the system under our hands. Through gentle, receptive touch CranioSacral therapists use different techniques depending on the evaluations. Techniques may be aimed at releasing and relaxing fascial strains and tension patterns, opening up osseous restrictions and compressions and/or assisting the membranes of the nervous system as well as the nervous system itself to soften and shift so that it is better able to function and accommodate change.

One of the most profound effects of CranioSacral Therapy is in the regulation and balancing of the autonomic nervous system (ANS). It is through this mechanism as well as the effect on the anatomical structures and physiological processes that CranioSacral Therapy can be extremely effective in the treatment of migraine and complex headaches.

One technique in particular that is highly effective in ANS regulation is the Still Point. This is a technique where the therapist encourages the craniosacral rhythm to pause and reboot. During this time fluid dynamics begin to shift in the cranium, minor myofascial restrictions begin to soften and relax and the nervous system begins to regulate itself a little better. Researchers have demonstrated positive results in the use of CranioSacral Therapy techniques for reducing pain and improving quality of life and based on these results, suggest that further research is warranted.<sup>12,13,14</sup>

In my work as a manual therapist I am excited by the profound transformation I have witnessed in countless patients achieving less pain and more ease in their lives through CranioSacral Therapy. As with much of manual therapy, reports of positive clinical outcomes as a result of CranioSacral Therapy precede the research that will come. Further research is, of course, warranted and I firmly believe the conclusions will support what we already know, that gentle, well-intentioned and receptive touch through CranioSacral Therapy will help our patients lead more fulfilling and meaningful lives with less pain.



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