CST and Headaches from Dental Braces

Case Studies by Dr. Weiner

The Desire for a Pretty Smile

This is a case history about a 14 year-old girl who had been suffering from headaches for over a year.

The desire for a pretty smile probably accelerated with the development of mirrors around 6000 BC. Prior to that, people used pools of standing water or water collected in some type of vessel to look at their reflection.

The Etruscans, a civilization of ancient Italy, invented the first dental appliances over 2,600 years ago. Dental bridges and simple retention bands were constructed of nearly pure gold and were used to hold false teeth in spaces where natural teeth had been lost or removed.

Orthodontic treatment has become very popular, with an estimated 4 million people in the US wearing braces at any time. Of this number, approximately 25% are adults. Dental braces are used for restorative and functional purposes, as well as for purely cosmetic reasons.

Common side effects of orthodontic braces are transient headaches, which typically occur following the periodic adjustment and tightening of the braces.

A pediatric neurologist referred Elizabeth, a 14 year old girl, to see me for psychological pain management of her persistent and severe headaches over the previous year. Her headaches started the last 2 months she wore her orthodontic braces and continued once she had a permanent retainer placed across her upper and lower teeth.

Elizabeth's headaches did not seem to have a trigger and were not related to menstrual periods or her diet. The headaches were in different places on her head – in the front or sides of her head, or her entire head might hurt. She had a headache nearly every day, sometimes in the morning or sometimes in the evening. If she woke up with a headache, the headache could last all day. The intensity of headaches ranged from 1-8/10 with an average intensity of 4/10. A headache was sometimes accompanied by dizziness and blacking out, and she often had to miss school because of a headache. Sitting in bleachers hurt her low back, and a small degree of scoliosis had been detected in a recent physical.

A variety of medications were prescribed at various times to control her headaches and included antibiotics, antihypertensive medication, low dose Elavil, antiseizure medication, Excedrin Migraine, and Allegra.

CranioSacral Therapy (CST) evaluation indicated that the symmetry of cranial rhythm was restricted on the lower left side of her body, the quality was labored and restricted, the amplitude was weak to fair, and the rhythm a little slow. The sphenoid bone had osseous restriction on the right side, the right temporal bone had an osseous restriction at the mastoid process, all diaphragms were tight, the TMJ was very compressed, and the cranial base was tight. Working with her sphenoid would reproduce her headaches.

The upper retainer was fixing the maxilla and appeared to be causing distortions in her craniosacral system, but the patient's mother did not want to have the retainer removed until the orthodontist was scheduled to remove it in another 10-12 months because of the amount of money she had already spent on her daughter's braces.

CranioSacral therapy was used during 7 of the 10 sessions that I saw her. CST modalities used included the 10 Step Protocol, mouth work, energy cyst release, therapeutic imagery and dialogue, global tissue release, and SomatoEmotional Release. Biofeedback (heart rate variability and frontalis EMG) therapy was used during the other 3 sessions to teach Elizabeth how to decrease the excessive muscle tension in her forehead and jaw which had resulted from living with headaches for a year. In addition, I taught Elizabeth a variety of stress-reducing relaxation and breathing techniques to improve her self-regulation abilities.

By the 10th session, Elizabeth's craniosacral system was stable and balanced. She had been headache free for 2 weeks, and she was discharged from my care. Had her headaches persisted, one option would have been for her orthodontist to temporarily remove the upper retainer (and thus release the fixation on the maxilla) to see if her headaches would resolve.

Dr. Upledger described a case of scoliosis resulting from effects of orthodontia on the spinal alignment of the vertebral bones in The Potential Impact of Orthodontia on Whole-Body Health.

Please allow me to explain the biomechanics of how such an event could occur in a 16-year-old girl. The paired maxillary bones are influenced via the pterygoid wings of the sphenoid bone with which they articulate bilaterally. The maxillary bones move in concert with the sphenoid bone via these articulations. Actually, the distance between the second upper molars on each side fluctuates about two millimeters at a rate of 8-12 cycles per minute in accordance with the craniosacral rhythm. The sphenoid bone is one of the prime movers of the craniosacral system. When the bone's mobility is restricted, the craniosacral system tries very hard to compensate for the dysfunction, but it's seldom fully successful.

When an orthodontic appliance is put on the upper teeth and it crosses the midline

between the two anteromedially located incisors, the motion of the maxillary bones induced by the sphenoid bone is inhibited and sometimes totally restricted. When they are first applied, the braces also might entrap one of the maxilla in an external position and the other in an internal position. In CranioSacral Therapy, the motions of the maxillae in response to the sphenoid bone are called internal and external rotations, because the maxillae appear to rotate about individual axes generally directed in anterior-posterior directions.
Additional information on how orthodontia can impact the entire body can be found in the article: Surviving Orthodontics: A Bodyworker's Exploration into Orthodontics and CranioSacral Therapy by Nancy Burke, CMT, CST. Both articles can be found online with a web search.

Whether a child or an adult is planning to wear orthodontic braces, CranioSacral Therapy is highly recommended as a conjoint therapy to minimize any side effects of the dental work. In fact, CST prior to receiving braces can start to correct any functional restrictions present, and in some cases, may even eliminate the need for braces!

http://www.mind-bodywellnesscenter.org/case-studies-by-dr-weiner/craniosacral-therapy-cst/cst-and-headaches/

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