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CranioSacral Dissection Sheds New Light on Effects of Palpation

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In early April 1999, a small group of us had the privilege of working with a human cadaver that had been neither embalmed nor frozen. It had only been kept in a cooler to inhibit the deteriorative processes.
It was the body of an 80-year-old male who had died only 34 hours earlier. The cause of death was lung cancer.

This particular dissection echoed back to others I had participated. By studying unembalmed cadaveric skull samples - skulls that had not been calcified from the effects of chemical agents - we were able to demonstrate the potential for movement between cranial bones. That fact that would become the underlying basis for what I would later name CranioSacral Therapy. Now, some 20 years later, this new round of cadaver dissections would allow us to understand the effects of this therapy in ways we could only have imagined.

To preserve the intracranial membrane system, we performed a parietal window dissection. Carefully, we removed brain tissue with no instruments but our gloved fingers. We also fully exposed the spinal dura mater to explore the interrelationships of the intracranial and spinal dural membranes, as well as their effects upon each other.

Those interactions in such a fresh cadaver were remarkable. We could see and feel the tensions developed in the falx and tentorium as we gently tractioned the dural tube from points between the occiput and the sacrococcygeal complex. The reverse, we found, was also true. As we lifted the frontal, parietal or sphenoid bones, we could see and feel the effects upon the spinal dura mater. It was all very exciting.

Now I’d like to describe our findings as we explored the effects of various activities upon the palatine bones. As you may know, a "stuck" palatine bone can be very difficult to release. It can also cause major problems, from severe headaches to visual disturbances and even seizures.

First we evaluated the resistance of motions induced by our fingertips on the palatine bones. The resistance was quite high - it required a push of at least half an ounce (15 grams +/-) to move either palatine in a cephalad direction. Pressing on the eyeball did not cause any movement in an inferior direction. This wasn’t surprising, considering there was no "life" in this body. (We questioned the concept of "life," however, when we noticed the dural membrane stretched at about five grams of traction, yet eemed to contract against us as we increased the traction.)

We then dissected the right eyeball and its surrounding fat pads, which were copious even though the cadaver was lean and muscular. The fat pads clearly occupied at least 40 to 50% of the volumetric space in the orbit. We exposed the superior aspect of the vertical pillar of the right palatine bone. We were careful not to disrupt the fascial lining of the orbit, so we couldn’t be accused of liberating fascial restrictions attached to the intraorbital aspect of the palatine bone.

We proceeded to induce palatine bone motion, with one finger upon its orbital surface and another finger upon its horizontal contribution to the hard palate in the mouth. The vertical and transverse mobilities of the palatine bone were still quite restricted. That’s when another therapist placed a finger in the mouth, contacting the internal aspect of the right zygoma. The zygoma was decompressed laterally. This technique broadened the floor of the orbit and dramatically freed the palatine bone so that its responses to even slight finger-induced motions were extremely smooth and easy.

I had been using this technique on my patients for some time, based on the theory that a stuck palatine bone might often result from abnormal medial compression of the zygoma. It seemed effective to move the zygoma laterally to release the bone. It was most gratifying to see and feel how well the technique worked from the inside. The principle is simply to widen the floor of the orbit using the zygoma as your "handle." As the floor widens transversely, the trapped palatine bone is released and can move vertically up or down. Usually it’s caught in a cephalad (upward) position.

Having witnessed the amount of fat in this orbit and the small area the palatine bone contributes to the intraorbital surface, it would seem to take an inordinate amount of pressure upon the eyeball to significantly facilitate palatine motion in a caudad (downward) direction. I much prefer to use the zygoma bone as the recipient of my force. After all, the eyeball is a delicate and intricately designed bag of fluid with subcompartments that can be much more easily damaged than the zygomatic bone.

Even with my level of experience in dissection and treatment, I found this type of dissection both enlightening and confirming. Since then we have continued to conduct similar dissection classes on a regular basis through the Institute. These classes focus on fresh, unembalmed cadavers, highlighting functional explorations rather than static observations. After all, no matter what anyone teaches you, there's nothing like discovering it with your own hands.

Click here for more information about John Upledger, DO, OMM.