Osteochondritis Desecans and CranioSacral Therapy

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Personal Information: 13yo, Male
Osteochondritis Desecans is a disorder seen often in juveniles where the bone near the growth plate ceases to grow, and appears to have decreased circulatory supply and a necrosis of the bone or bone death in an isolated area. This can lead to severe pain and injury as the involved bone tissue is more fragile, and can also lead to unequal growth of bone on the two sides of the body, leading to leg length discrepancy and a multitude of problems from asymmetrical posture and improper joint alignment in the hips, knees, and ankles.
A 13 year old boy, whom we will call Jacob, who is a serious gymnast, incurred extreme pain in the left knee when running up-hill, and twisting to look back. Jacob was seen by his physician, and also seen by his orthopedic specialist who did an MRI. He arrived for evaluation because of extreme knee pain, and an MRI indicating an area of Osteochondritis Desecans (OCD) in the left medial femoral condyle measuring 11 mm x 3 mm x 15 mm in an oval shape. He was instructed by his physicians not to run, jump or jar the left leg at all and to cease all his "quick impact" gymnastics activities (i.e. no landing from gymnastics tricks on bars, rings, vault, etc.) for approximately 9-10 months to allow complete healing before limited progressive impact weight bearing could be gradually begun. He was given no instruction in any activities he could do to improve the rate of healing, and was told only ways to manage pain or swelling. Jacob was understandably very concerned that he could not return to his full gymnastics regime for such a long time, and hoped that cranio sacral assessment and treatment could help in some way.
During assessment and treatment Jacob also noted nightly headaches.

Objective Findings: Jacob was seen for initial evaluation on Aug. 19, 2008. His MRI was done on June 26, 2008. The pain in Jacob's left knee was reproducible as a sharp "6" (on a 0-10 subjective pain scale with 10 being the highest) when twisting, and "4" as a dull ache if standing for awhile. Jumping or landing on his left leg again caused a sharp "6-7" pain, and bicycling which put a strain on the knee joint without impact or jarring was also intolerable. Jacob's mother reported that he limped when climbing stairs, leading with the right (uninvolved) lower extremity versus alternating feet. Assessment of posture in barefoot standing and supine measurements indicated postural asymmetry in barefoot standing with pelvis superior on the right 1.0 cm at the iliac crest; right acromion process and inferior angle of scapula was both 1.0 cm superior to the left. He demonstrated a mild 15-20 degree convex left "C-curve" scoliosis with the apex at T7/T8. He showed a right anterior inominate / pelvic obliquity, sacral torsion, leg length discrepancy, smaller tibia, and left foot, asymmetrical hip external rotation in resting, fascia1 tightness along entire medial left leg and thigh into the groin and sacrum, mild left convex "C-curve" scoliosis about 15-20 degrees, occiputo-atlantal joint compression, and spheno-basilar compression and asymmetry. There was boggy and restricted movement in the liver meridian from the left foot up into the sacrum, with an energy cyst in the left groin region, and left sacrum, and a large dense energy cyst in the liver. He also had facilitated segments at the levels of T6/7/8 in the thoracic spine, with skin shoddiness bilaterally, greater right. There was another lesser energy cyst in the spleen. The dural tube was also restricted at the level of L 1/2 and the foramen magnum, with extreme tension in the tentorium cerebelli bilaterally. This was of interest both with respect to his complaints of headaches nightly, and as sometimes there is an endocrine component of the OCD diagnosis, and tensions at the attachments to the sphenoid bone, which cradles the pituitary gland would potentially impact the endocrine system. An energy cyst over the distal femur in the region of the OCD seemed to completely restrict energy flow through the area.

Leg length measured from anterior superior iliac spine to the medial malleoli was an averaged measurement of 70.2 cm right, and 68.9 cm left, with a difference of 1.3 cm difference shorter on the left lower extremity. Supine resting posture showed external hip rotation at 45 degrees right and only 25 degrees left. The sacral torsion presented with right superior posterior torsion along left oblique axis. Extreme fascial tightness running from left medial ankle superior through medial left knee, thigh, and up into groin and left sacro-iliac joint. The left tibia and foot were visibly smaller by about 15%. Jacob also presented with r d c t e d Cranio-sacral rhythm along left lower extremity at the left ankle, tibia thigh, and again at the shoulders bilaterally. The occiputo-atlantal joint was very compressed with poor mobility - limited approximately 85%. He also demonstrated spheno-basilar lesion in flexion, and right side-bending with extreme compression. Temporal bones were also very compressed, and dm1 membrane tension restricted bilaterally (as could be related with complaints of headaches.)

Short term goals for treatment included:
1. level pelvis, decreased scoliotic curve, shoulders level in standing with lift in left shoe
2. increased passive and active range of motion at left hip
3. increased fascial mobility in left lower extremity
4. decreased pain in left knee with walking stairs and alternating feet
5. decreased complaints of head aches
6. decreased leg length discrepancy after wearing left shoe lift and improving symmetrical weight bearing to both legs
7. improved circulation and energy mobility through left femur, with increased rate of healing
8. independence in home exercise program for postural symmetry, improved balance and stability in left hip in one-leg balance left, and increased muscle strength to muscles around the left knee
9. return to all gymnastics activities as soon as possible and when cleared by his physician

Progress Summary: Jacob was seen fur 8 periodic visits from May 2008 through January 2009, for a total cost of $950 for evaluation and treatments. He was re-evaluated on May 1, 2009. Because of the measurable leg length discrepancy and resultant unequal weight-bearing loads to the bones in the two legs, a 1/4-inch shoe lift was inserted into the left shoe on 8/29/08 to level the pelvis and normalize symmetrical weight bearing. It is has been long documented that weight bearing and load to the bones stimulates growth, and his unequal load may have contributed to the smaller size of the left tibia and foot. He wore this for about a month, and it was removed as the leg length discrepancy measured with averages from anterior superior iliac spine to medial malleoli improve from a difference of 1.3 cm greater on the right on 8/29/08, to an average of 0 3 cm greater on the right on 9/23/08. There was a visible increase in size of the left tibia and foot as well as increased fascial and energy mobility throughout the left lower extremity. Jacob was able to climb stairs, alternating his feet, without limping and no complaints of pain within a couple weeks of his first treatment. Left hip external rotation range of motion became equal to the right, and was noticeable in supine resting position equally. Energy cysts were dissipated through direction of energy and Somato-emotional Release techniques with dialoguing. Jacob did well with dialoguing with his liver, left knee, heart and "front and back brain." He was aware of storing anger and 6usmtion with his little sister, and incidents of a severe injury to the left testicle at an early age, and fall of the monkey bars landing on the left heel, came up in treatment. He also did some negotiating with his heart and the parts of his brain that were not in agreement over how hard Jacob should be mining in his gymnastics practice and his ability to stand his ground and decline when his coach encouraged him to do something beyond his "safety meter" because of fatigue or over-training. The left knee injury was a very legitimate injury that the coach was comfortable making allowances for because of

doctors orders, but Jacobs brain was concerned that if the knee healed, he would no longer have any way to say "no" and keep himself safe as the heart really desired making it to the Olympics one day. Jacob became comfortable in visualizing his gymnastics routines mentally, and talking to his knee nightly to encourage positive healing and growth.
After the 8th visit Jacob's barefoot stance showed level pelvis and shoulder, and no measurable scoliosis, with improved mid-line weight bearing between lower extremities, versus greater weight on the right, without any lift in his shoe. Sacral torsion and compression resolved, as did Occiputo-atlantal joint compression. Spheno-basilar joint compression and symmetry improved significantly, and with temporal decompression the tentorium cerebelli mobility improved as well. Treatment of facilitated segments at T6/7/8 improved with no skin bagginess (shoddiness) and improved anterio-posterior mobility of these vertebra. The innervations to liver, heart and spleen cleared and were no longer hyper-excitable. The dural membrane restriction at L1/2 area resolved as well. He showed improved tolerance of bicycling without complaints of pain. At several visits, he noted that he hadn't had a head ache since the last treatment. Shortly after Jacob's last visit on 1/16/09 he saw the orthopedic specialist for another MRI of left knee, and the MRI showed decreased size and conspicuity of the osteochondral injury. He was given early permission to weight bear jarring and landing "to tolerance" on the left leg, and quickly returned to his lower extremity gymnastic training with assistance in dismounts as first, later landing independently 6om all his events. He competed shortly after in the Spring 2009 Regional Gymnastics Competition and took the gold in every event, taking the gold all-around for 6 states. Jacob and his mother are sure that the Cranio-Sacral therapy treatments allowed him to return much sooner to his sport, and to prevent further complications down the road from the restriction patterns that were present in his body. Jacob is very pleased with his rapid recovery and return to the sport that he loves. It was a pleasure working with him, and I am excited to see him progress in his sport in the future! Perhaps we will see him in the Olympics one day.

Abstract: 13 year old gymnast with left medial femoral condyle Osteochondritis Desecans was treated in 8 CranioSacral Therapy sessions to address osteochondral injury and related findings: leg length discrepancy, pelvic obliquity, sacral torsion, scoliosis, facilitated segments at T6/7/8, dural tube restrictions at L1/2, dural membrane tightness - especially in the tentorium cerebelli, occiputo-atlantal joint compression, spheno-basilar compression and asymmetry, fascial tightness and restrictions throughout the left lower extremity, decreased size of the left tibia and foot, energy cysts at left groin/sacrum, as well as the liver and spleen. After 4 treatments his leg length discrepancy reduced from an average measurement from the anterior superior iliac spine to the medial malleoli of 1.3 cm, down to 0.3 cm. His complaints of pain subsided, and MRI documentation showed decreased size and conspicuity of osteochondral injury, and he was returned by his orthopedic physician to full weight bearing and impact activities many months ahead of predictions. As follow up research, it would be interesting to check pelvic obliquity, and leg length discrepancy in relation to Osteochondritis Desecans as a correlation. Previous physical insults to the left leg and groin were recalled during treatment and may have led to poor tissue mobility and integrity in the left leg. Teaching the boy to visualize his gymnastic routines during his time of no impact weight bearing on the left leg felt very helpful to him, as well as dialoguing independently with his lee bee at night toward rapid positive healing. He took the gold in all his gymnastic events and the gold in the all around category for the Spring Regional Gymnastics Competition, competing with six states about 6 weeks after his last treatment (8 periodic treatments spanned from 8/19/08-1/16/09.)