Barral Institute Case Study  
Neural Manipulation – ADHD/Stuttering/Sleep Disturbance  
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Abstract: A case study of a year 17 y.o. male suffering with symptoms of ADHD, stuttering, sleep disturbance, and R A/C Jt pain that resolved with treatment of cranial sutures, dura, encephalon and associated nerve structures with neural manipulation techniques.

Key words: ADHD, sleep disturbances, stuttering, A/C Jt pain, neural manipulation.

Date: 12/22/2017  
Diagnosis: Stutter and ADHD, R shoulder pain, difficulty sleeping.  
History: This case is a year-old R hand dominant senior in high school that complains of ADHD, poor focus and a stutter that is worse when he does not take Adderall. He complains of difficulty falling asleep and usually only sleeps 5--7 hours a night and wakes 2--5 times a night. His symptoms began in 5th grade. 
Past medical history includes R radial fracture in 2010, Dislocation R shoulder in February 2017, off and on LBP since he was 10 years old. 
Medications include 300mg Adderall daily  
Aggravating factors include stress and fatigue increase his ADHD or if he talks fast his stutter is worse. His right shoulder is sore intermittently since the dislocation in February, worse with throwing or reaching across his body. Symptoms alleviated by medication. Also had speech therapy when he was 10yo that helped.

Objective Assessment: revealed 17y.o. male with healthy body weight  
Posture B protracted shoulder complex, mild FHP, and tendency to slouch in sitting and standing. R shoulder A/C Jt more prominent. He was somewhat withdrawn and required a bit more enthusiasm from PT to get him to engage.  
General Listening: cranium Manual Thermal: over right cranium and R eye  
Local listening supine at vertex: anterior and R into SOF.  
Pre Treatment pain 4/10 with R shoulder end range horz add and IR.  
Cervical AROM flexion = 78° Ext=90° Rotation R =58°L=82° SB R =55°L=35°.  
Standing Functional UE NTT: R=45° and L=80°.  
Standing Thoracic/Lumbar Rotation R=50% L=90%, all other trunk ROM is WNL  
Extension Slump Dural tension test R=---45° L=---40°  
Flexion Slump Dural tension test R=neg L=neg.  
Restrictions in R cranial sutures, R A/C Jt, craniofacialsuture.

Procedure/Treatment: Patient was seen for an initial evaluation 75minutes and four 60 minute treatment sessions. Initial treatment included techniques for release of craniofacial suture, SOF, nasal suture, R frontal bone, R coronal suture,
squamous suture, Intracranial viscoelastic pressure techniques on R partial and
cerebellar regions. R supraorbital nerve connecting it with greater occipital nerve on the R affecting scalp fascia. His follow up session included treatment to mostly L sided to sutures, falx, tentorium cerebellum (with eye tracking), Intracranial viscoelastic pressure techniques on L partial and cerebellar regions. Techniques for R Suprascapular nerve and viscoelastic into ease for R A/C Jt release. Given HEP of Braingym exercises “lazy eights” for eye tracking and cross connection of UE and LE for R/L integration. Recommended he see a Braingym specialist for a few sessions, which he did between his 2nd and 4th PT sessions.

Reassessment post sessions: The most marked response was after his first session in which he slept for 18 hours. From that time on he was sleeping 7--9 hours and only waking 1--2 times at fist and then eventually sleeping through the night. He also reports his stutter is 90% better and has been able to wean completely off the Adderall by his last session. His R shoulder is no longer painful. His posture was more upright and he seemed more engaged in conversation with therapist at last session expressing excitement about the changes. Pain was a 0/10. Cervical AROM flexion= full  Ext= full  SB R= L= Rotation R=82° L=83°. Standing Functional UE NTT: R=180° and L=180°. Standing Thoracic/Lumbar Rotation R=100% L=100%. Extension Slump Dural tension test R=neg L=neg Improved tissue mobility in cranial sutures, dura, scalp fascia, R A/C Jt.

Discussion: Findings indicate possible symptoms related to increased tension in cranium affecting focus related to tension in dura, cranial sutures, osseous, fascia, scalp fascia, and encephalon.

Conclusion and Recommendations: Further assessment of the relationship of tension in dura, cranial sutures, osseous, fascia, scalp fascia, and encephalon with ADHD needs to be studied.

Treating Therapist: Veronika Campbell, PT, MPT, CSCS, NSC

References:
- Barral Institute Neural Manipulation Course Workbooks from NM1-NM4, 2006-2016