

### **Case History:**

21 y/o male club hockey player presents with concussive symptoms following a whiplash injury in which his shoulder was checked into the boards. He felt his head hit the boards as a secondary impact. Has had two previous concussions – 15 y/o with a 2-3 week recovery and 19 y/o with a 6 month recovery. Chief symptoms initially were neck pain, balance impairments and feeling more emotional.

### Symptom Onset

Important Case D	Symptom Severity	Symptom Score	Day #
Neck Pain: 5/6	21	11	1
Neck Pain: 4/6, "Ram's Horn" decrease in overall symptoms v NDI: 68%.	18	10	5
Self transport to ED for severe no change with Tylenol. CT cle and discharge	-	-	6

### Symptom Plateau

Important Case De	Symptom Severity	Symptom Score	Day #
Patient leaves team – emotional home.	-	-	18
Neck Pain: 1/6, Pressure in Head	5	4	37
Neck Pain and Pressure in Head Physician visit for plateau in sym resolution after MET of cervical so return the next dated	6	5	40-65
Return from intersession, ne symptoms. Neck Pain: 2/6, Press NDI: 28%. <b>Dry Needling scrip</b> treatment started	5	4	96 (1)

### **Physical Exam:**

Took over case day 40, just before intersession. Patient returned to campus on day 96 and exhibited decreased cervical lordosis and range of motion, sub-occipital and paraspinal neck tenderness, impaired cervical spine proprioception.

### **Cervicogenic Concussion:**

Isolated mechanoreceptive, nocioceptive, and proprioceptive dysfunction within the cervical spine neurological sub-system. Whiplash is the primary cause.

Common symptoms: Dull occipital headache exacerbated by prolonged neck stabilization, neck stiffness, decreased range of motion, dizziness, fogginess, and postural imbalance.



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# **Dry Needling for a Cervicogenic Concussion**

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IA presentation ith cervical OMT,

rontal headache, ar, given Tylenol

### tails

stress. Has been

d: 2/6, NDI: 40%.

: 2/6, NDI: 30%. ptoms. Symptom spine in clinic, but

o change in sure in Head: 1/6, pt placed and



### **Dry Needling:**

A skilled intervention that uses a fine, solid filiform needle that involves penetration of the skin with therapeutic intent, without injectate. Needles are inserted into neuromusculoskeletal tissue and target deeper tissue than other manual therapy techniques.

Neurophysiological effects include central and peripheral desensitization that releases inflammatory mediators and provides short term analgesic effects.



## **Dry Needling Progression:** 109 (2) 116 (3) 117 118-122





Three sessions of needling were performed. Needles inserted into trapezius musculature using the in-and-out pistioning technique. Needles placed into temporalis, cervical paraspinals and occipitalis musculature were inserted and left in situ for 10 minutes.

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om ty	Important Case Details
	Neck Pain and Pressure in Head: 1/6, NDI: 12%.
	Neck Pain: 1/6, NDI: 6%.
	Asymptomatic, no cervical ROM deficits, NDI: 0%.
	RTP started, No Return of Symptoms, Discharged.

### **Needling Protocol:**

### **Disclosures**:

### **Acknowledgments:**