OMT, Cupping, and Exercise Prescription to Optimize Musculoskeletal Care

Presented By: Ben Bring DO, FAAFP, CAQSM
Director of Osteopathic Education
Assistant Program Director
Dublin Methodist Family Medicine Residency Program
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Goals and Objectives

By the end of this presentation, the participant will be able to:

1. Identify common areas of somatic dysfunction seen in primary care
2. Apply and utilize Osteopathic medicine to treat patients with somatic dysfunction
3. Utilize medical cupping protocols to treat somatic dysfunction
4. Develop an individualized exercise prescription to help enhance your treatment plan
What’s Your “WHY”?
Case #1

A 35 year old female IT worker presents to your office with 6 month history of upper back pain. Most of her pain is localized to the medial thoracic spine and is worse at the end of the day. Currently for exercise she tries to walk 7,000 steps per day and sometimes will go outside for a walk during lunch. The patient was previously involved in a lot of sports at a younger age but has stopped these as she got older. Most of the day she spends 10-12 hours at a computer.

She denies any previous neck or shoulder injuries and sometimes has some left upper extremity numbness and tingling.
Differential?
## Round 1

<table>
<thead>
<tr>
<th>Condition</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Crossed Syndrome</td>
<td>35</td>
</tr>
<tr>
<td>Radiculopathy</td>
<td>28</td>
</tr>
<tr>
<td>Somatic Dysfunction</td>
<td>20</td>
</tr>
<tr>
<td>Shoulder Impingement</td>
<td>12</td>
</tr>
<tr>
<td>Scapular Dysfunction</td>
<td>5</td>
</tr>
<tr>
<td>Condition</td>
<td>Score</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Tight Pectoral Muscles</td>
<td>35</td>
</tr>
<tr>
<td>Weak Neck Flexors</td>
<td>28</td>
</tr>
<tr>
<td>Tight Rhomboids</td>
<td>20</td>
</tr>
<tr>
<td>Weak Trapezius</td>
<td>12</td>
</tr>
<tr>
<td>Weak Serratus Anterior</td>
<td>5</td>
</tr>
</tbody>
</table>

Round 2
What’s Next?

#1. Osteopathic Exam!
Inspection
Range of Motion
Palpation
Structural/Neurologic Exam
Segmental Dysfunction
Trigger Points
Somatic Dysfunction
1. Ear Height
2. Tip of Acromion
3. Angle of the Scapula
4. Iliac Crest
5. Finger Tips
6. Lateral Femoral Condyle
7. Lateral Malleoli
**Acute Changes**
- Warm/Hot tissues
- Boggy/rough texture
- Increased moisture
- Increased tension
- Tenderness
- Edematous
- Red reflex lasts

**Chronic Changes**
- Cool temperature
- Thin/smooth texture
- Dry
- Ropy tension
- Less tender
- No edema
- Red reflex fades fast
Algorithm²

- Fryette’s laws 1 and 2 only apply to thoracic and lumbar spine

- Lumbar spine → main motion is flexion and extension

- Motion opposite to thoracic spine with inhalation/exhalation
Infraspinatus and Teres Minor Trigger Points
Subscapularis Trigger Point
#2. OMT
Soft Tissue Techniques

Fascial stretching and myofascial release

Treatment of Trigger Points (direct or indirect)

Thoracic spine mobilization (HVLA)

Evaluate and treat cervical spine and ribs

Soft Tissue and Lymphatic treatment

Other considerations: Lumbar spine

Evaluate quadratus lumborum, hip flexors, paraspinals

SI joints, lumbosacral torsion, innominate dysfunction
Thoracic Spine Soft Tissue Treatments\textsuperscript{1}
Thoracic Spine Counter-Strain

**FIGURE 9.69.** PT4–PT9 lateral tender points (5).

**FIGURE 9.70.** PT4–PT9: e-E Rt.
Thoracic Spine HVLA \(^1\)
Thoracic Spine HVLA

FIGURE 11.36. Steps 3 and 4.

FIGURE 11.37. Step 5.
Also Consider:

1. Muscle Energy
2. Myofascial Release
3. Facilitated Positional Release
4. Direct Inhibition
#3. Cupping
Introduction to Cupping
Egyptians 1550 B.C.
“Acupuncture and cupping – more than Half the ills cured”

Ge Hong 281-341 AD
Cupping Benefits

**Skin ➔ Increase in:**
1. Blood circulation
2. Skin temperature
3. Skin tissue metabolism
4. Sweat and sebaceous gland function
5. Nutrition to tissues

**Muscle ➔ Improvements:**
1. Blood flow
2. Removes congestion
3. Increased temperature
Static Cupping

Deltoid

Latissimus dorsi
Dynamic Cupping

Deltoid

Latissimus dorsi
You did some OMT and Cupping...

“How can I prevent this from happening again”? 
Exercise!
2:1
Scapular Protraction – Serratus Anterior
Scapular Protraction
Scapular Retractors
Interesting Cupping Protocols
Posterior Cord for Plantar Fasciitis

- Peroneus longus
- Peroneus brevis
- Gastrocnemius muscles
- Soleus muscle
- Achilles tendon
Low Back Pain
Shoulder Impingement
Gluteus Medius – Lower Crossed Syndrome
Gluteus Medius – Lower Crossed Syndrome
Resources

The Guide to Modern Cupping Therapy

Trigger Point Flip Charts

Atlas of Osteopathic Techniques