Osteopathic Approach to Common Medical Problems

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Objectives

- Demonstrate osteopathic techniques for common medical problems found in the family medicine clinic and inpatient service
- Describe viscerosomatic reflexes
- Discuss lymphatic techniques and the role of the lymphatic system in disease modification
- Allow time for practice and demonstration of techniques
Case #1

- A 55 yo female comes to the office with low back pain wondering if manipulation would help. She was referred by her PT. She states that approximately 8 weeks ago she underwent a bowel resection for diverticulosis. She has recovered well and is now in PT to regain abdominal strength/core strength. She was told she is ‘off’ in her low back and sacrum. She would like to get this fixed, so that she can get back to PT and eventually her exercise routine.
Physical Exam findings

- **Vitals:** within normal limits
- **Abd:** well healed scar c/w surgery, + bowel sounds
- **MSK:** Tight paraspinals throughout thoracics, lumbar, and cervical spine – but especially tight in lumbars
- **Neuro:** No radicular symptoms, no numbness/tingling, no weakness
- **Osteopathic:** Right anterior innominate, left on left sacral torsion, lumbosacral somatic dysfunction, L3 RrSr, thoracic group dysfunction T4-T8 (RlSr)
- **Cervical:** C5 SrRr
What could be causing her problems?

- Mechanical
- Somatic Dysfunction
- Viscero-somatic dysfunction
Somatic Dysfunction

- Defined – a review
  - Impaired function of fundamentally normal anatomy
  - It is not pathology
  - It predisposes to pathology and once pathology is established it maintains pathology

- Remember:
  - Somatic dysfunction DOES NOT EQUAL segmental dysfunction
  - You can have somatic dysfunction present with simply tight paraspinals, no vertebral sidebending/rotation needed
What are viscero-somatics?

- It goes back to the autonomic nervous system (ANS)
  - Sympathetics – fight or flight
  - Parasympathetics – rest and digest
Autonomic Nervous System

Hypothalamic autonomic centre

Mesencephalon
Pons

M N

Sympathetic trunk
Superior cervical ganglion
Stellate ganglion

T1
T2
T3
T4
T5

Dilatator
Constrictor

Tear and salivary glands

Vagus

Edinger-Westphal
Salivatory nuclei
Dorsal vagal nucleus

Solar plexus

Superior mesenteric ganglion

Vessel
Adrenal gland

Pancreas
Small intestine

Colon

Pelvic nerve

Genitals

Parasympathetic nervous system

S2
S3
S4

Sympathetic nervous system

Fig. 6-1

KMc
So this means ...

- That many visceral structures share nerve roots/space on the sympathetic chain with nerves serving somatic areas ...

- Result?
  - An inflamed viscera can cause problems in their somatic partners
Examples

• Colon and Rectum: T11-L3
  • Ascending colon: T11-L1 right
  • Descending colon: L1-L3 left

• Liver and Gall Bladder: T6-T9 right (why most people with gallbladder issues have right back/shoulder pain)

• Pulmonary T1-T4 bilaterally (or unilateral if unilateral process)
Hence ...

- You can treat a visceral problem through osteopathic manipulation to the somatic portion
  - Eg treat the L2-L3 paraspinals, somatic dysfunctions and you may be able to ease the colon problems
  - This type of thing works great for problems like constipation
Treatment

- Pelvis – ME to anterior innominate
- Sacrum – ME to torsed sacrum
- Lumbar spine – ME, soft tissue
- Thoracic spine – HVLA, soft tissue
- Cervical Spine – soft tissue, ME, HVLA
Case #2

- A 22 yo female patient presents to the office with a 2 day history of cough, congestion, and sinus pressure. No fevers or chills. “Everyone” is sick at home. You suspect viral URI/sinusitis. Patient is doing supportive treatment with Neti pot, Mucinex D, and is on Flonase chronically. What else can you offer her?
1. **Thoracic cage (spine, ribs, inlet and diaphragm)**
   - To enhance lymphatic drainage of the upper respiratory tract.
   - The region may be further treated with the patient supine (or prone).

2. **Upper thoracic spine and ribs.**
   - To effect sympathetic reflexes and further enhance lymphatic drainage of the upper respiratory tract.
3. Utilize suboccipital myofascial release
   - To address trigeminal reflexes.
   - To address vagal reflexes.

4. Anterior neck soft tissues
   - To enhance lymphatic drainage of the upper respiratory tract.

5. Thoracic lymphatic pump
   - Also to enhance lymphatic drainage of the upper respiratory tract.
Thoracic Lymphatic Pump

**Procedure:**
- Place your hands on the patient's anterior chest wall over the patient's pectoralis major muscles. The heels of your hands should lie on ribs 2-4.
- With your elbows straight, have the patient breathe in through their open mouth and exhale passively. As the patient exhales, follow the exhalation motion downward and maintain the end point. This applies a compressive force.
- With each following breath, slightly resist inhalation and maintain your pressure at the end position of exhalation.
- One third of the way through the fourth or fifth inhalation, briskly remove your hands from the chest wall, as a rush of air will enter the patient's lungs.
Thoracic Lymphatic Pump
• **Sinus Effleurage**
  
  **Effleurage** is defined as “stroking movement in massage used to move lymphatic fluids.” Inflammation, swelling of the mucosa, excessive mucus production, and decrease of ciliary motility can all be positively modified by this technique.

Whether the cause is allergic or infective, effleurage will promote lymphatic drainage. The treatment is followed by effleurage of the anterior cervical chain towards each lymphatic duct and ultimately the heart.
Effleurage

- Over a period of two to five minutes or more with a large repetition of strokes, bring the thumbs across the frontal sinuses and maxillary sinuses from medial to lateral ending up towards a point near the ear lobes in the neck region.

Then one side at a time, use the thumb to milk the lymphatic fluid down the anterior aspect of the sternocleidomastoid muscle along the anterior cervical lymphatic chain towards the heart. This technique can be repeated and taught to the patient as needed.
Effleuragé
Headaches

- Tension headaches can be largely relieved by OMT
- Mainstays of Treatment:
  - Suboccipital tension release
  - Soft Tissue Stretch
  - Muscle energy to release any restrictions of motion/enhance stretch
  
Pt Ed: the tennis ball technique
Posture!!!!

- Most people have poor posture
- We live in a forward flexed world
- Protracted posture puts more stress on the posterior chain muscle group which causes more headaches/neck aches/shoulder pain
How to correct posture?

- ‘Ears in line with shoulders in line with hips’
- Corner stretch – stretch out pectoralis muscles
- Towel or ball behind back when sitting for a prolonged time
Lower Respiratory/Bronchitis

- Many of the upper respiratory techniques can be helpful
  - Open thoracic inlet/outlet
  - Thoracic lymphatic pump
  - Rib raising
  - Correction of rib dysfunction caused by frequent coughing
  - Diaphragm release
Case #3

- Mr. X is a 63 yo patient who is admitted to the hospital 4 days ago for RUQ pain and nausea. He is recovering well from a lap chole and is nearly ready to home but is noted to not have had a bowel movement since the day prior to admission - 5 days ago. We have given him Colace and Senna, but he is still struggling. KUB shows no signs of obstruction. He really does not want an enema (can you blame him?). What other alternatives are there?
Constipation/post-op Ileus

- Treatment for constipation/ileus should focus on stimulating the parasympathetics and inhibiting the sympathetics.
  - Suboccipital tension release (for Parasympathetics)
  - “Rib raising” in the lumbar spine – same technique as rib raising (without ribs) – but goal is to relax the sympathetic chain and allow decrease in sympathetic tone
Case #4

- Ms. Y is a 19 yo female CF patient admitted to the hospital for cleanout. She is coughing, afebrile, c/o thoracic and rib pain as well as low back pain from laying in hospital bed.

- What kind of somatic dysfunction would you look for?
What would your treatment be?
Many more!

- Also helpful from a family medicine standpoint with problems like CF, CHF, acute otitis media in children, and even in infants who are colicky or who have poor suck – these are for another day ;-)
Any Questions?