

Facilitator's Guide

Section I: OMM Case Presentation. Prior to the next OMM session Residents should read the case below and be prepared to discuss the questions in Section II

Case Presentation

Chief Complaint: A 15 year male presents to your office complaining of low back pain.

History: He reports he has had pain in his back for the past 18 months. He describes the pain as a constant ache that has gotten progressively worse over the last several months. His pain is currently a 7/10. He reports that his pain is worse with increased activity, such as playing football and basketball.

PMH: frequent ear infections, plagiocephaly as infant, asthma, motor vehicle collision,

PSH: open reduction internal fixation right ankle fracture, tonsillectomy, bilateral tympanostomy,

Meds: Advair (fluticasone/salmeterol)250/50 one puff twice daily, ibuprofen 800 mg every 4-6 hours as needed for pain, multivitamin daily. Albuterol INH one to two puffs every 6 hours as needed for shortness of breath

Allergies: PCN

Social History: A freshman in high school lives with mom and two sisters. He denies any alcohol, tobacco, or recreational drug use.

Family History: His mom is overweight with diabetes. Dad deceased from a myocardial infarction at age 35. He was a type 1 diabetic with uncontrolled hypertension. One sister has diabetes mellitus type I.

Review of Systems:

Gen: denies any recent weight gain or loss.

Skin: denies any rashes or unusual moles

HEENT: denies recurrent cephalgia, wears contacts for vision correction, denies any oral lesions or ulcerations, denies any difficulties swallowing

CV: denies any congenital heart abnormalities, murmurs, hypertension, claudication or dyspnea on exertion

Resp: denies any shortness of breath, cough or wheezing currently. He has a history of asthma, RSV, and pneumonia

GI: denies any nausea, vomiting, diarrhea, constipation, heart burn or decreased appetite

GU: denies any dysuria, hematuria, nocturia, incontinence, or sexually transmitted diseases

Musculoskeletal: reports having back pain for the past several months. No history of injury to his back

OMM Focused Structural Exam

Patient examined in the standing, seated, and supine positions. Tightness in the cervical, thoracic and lumbar paraspinal musculature. Straight leg test was negative bilaterally. His head had a left torsion pattern. His OA was ES_rR_i, C 2-5 ERS_r, T 4-9 NS_rR_i, T 11-L4 NS_rR_i. Right fibular head has a posterior medial glide. His sacrum is rotated left on a left oblique axis. Right anterior innominate. There is ribcage stiffness bilaterally. Right medial malleolus superior compared to the left.

Physical Exam

Vitals: B/P 100/65, P 60, R 20, T 98.4, Wt. 175 pounds, Ht. 6 foot, BMI: 23.7

General: 15 year old Caucasian male in no acute distress.

Skin: warm, dry and intact

HEENT: normocephalic, EOMI, PERRLA, Tympanic membranes scarred but good cone of light, neck supple, no lymphadenopathy, no thyromegaly, no carotid bruits

CV: HRRR without murmur, dorsalis pedis, posterior tibialis, and radial pulses strong and equal bilaterally.

Pulm: LCTAB. Respirations non-labored

Abd: Bowel sounds present in all four quadrants, no organomegaly appreciated.

GU: Penis circumcised, no discharge or lesions, testicles descended bilaterally, no masses palpated.

Rectal: good sphincter tone, no masses palpated.

Neuro: Alert and oriented to person, place, and time. CN II-XII intact, DTR 2/4 bilaterally at biceps, triceps, brachioradialis, patellar, and Achilles. Muscle strength was symmetrical at 5/5 for upper and lower extremities.

Assessment:

- Be prepared to discuss this at the OMM session. Indicate the primary Medical Diagnosis based upon the international Classification of Diseases (ICD-9). This justifies the Evaluation and Management (E&M) coding portion of the visit.
- List all secondary comorbid and complicating factor diagnoses, in order of importance. Itemize somatic dysfunction diagnosis for each body region treated using OMT. This justifies reimbursement for OMT.
- Be prepared to discuss management of typical comorbid and complicating factors associated with the patient's diagnosis and how management and treatment would be modified with each comorbid and complicating fact

Section II: Focus of the Case (approximate time 20–30 minutes)

Discussion Questions

Teaching Points

<p>1. Propose an appropriate differential diagnosis / assessment</p>	<p>Differential Diagnoses:</p> <p>1. Back pain, herniated disc, paraspinal muscle spasm, iliopsoas syndrome, spondylolisthesis, spondylolysis, short leg syndrome, scoliosis.</p>
<p>2. What is your final diagnosis?</p>	<p>1) Back pain</p> <p>2) Somatic dysfunction of head, cervical, thoracic, and lumbar spines, sacrum, pelvis, lower extremity, and ribs</p> <p>3) Potential Short leg syndrome</p>

<p>3. How do you explain the current structural findings in the context of this case?</p> <ul style="list-style-type: none"> • Are any relevant structural findings missing? • What would you do differently? • Why? 	<p>His short leg could be the result of his right ankle fracture. Thoracic somatic dysfunction can be from his asthma. This would be a viscerosomatic reflex. A viscerosomatic reflex is the result of afferent stimuli arising from a visceral disorder affecting somatic tissues. Viscerosomatic reference sites for the lungs are C3 and C4 and T2-T9.</p> <p>If treatment does not relieve pain, a postural study <u>after</u> an OMM treatment, would be indicated to look for short leg syndrome or scoliosis.</p>
<p>4. What pathophysiology & functional anatomy knowledge is pertinent for diagnosing/treating this patient</p>	<p>It is pertinent to know whether the patient has sacral unleveling due to a short leg, whether he has scoliosis possible resulting from untreated plagiocephaly as an infant, and if his rib cage stiffness is the result of asthma.</p> <p>This patient should undergo postural x- ray series after he has been treated with osteopathic manipulation.</p> <p>Asthma-airways are hypersensitive to stimuli. When exposed to stimuli bronchi spasm. This is followed by inflammation causing further narrowing of airways and excessive mucus production resulting in coughing, wheezing, and shortness of breath. Coughing, and breathing abnormalities affect the motion of the diaphragm and rib cage and can lead to somatic dysfunction.</p>
<p>5. What will be your highest yield regions?</p>	<p>Cranium, Thoracic, sacrum and lower extremity dysfunctions</p> <p>Diaphragm re-doming and rib raising</p>
<p>6. How does previous trauma influence these regions?</p>	<p>Having a short leg can add stress to the back and result in compensatory changes</p>
<p>7. Which 1 or 2 of the aspects below has the greatest influence on the patient complaint?</p> <ul style="list-style-type: none"> • Pain • Fluid congestion • Hyper-sympathetic influence • Parasympathetic influence 	<p>Pain- responsible for bringing patient in to be seen</p> <p>Sympathetic influence- thoracic dysfunction and asthma</p>
<p>8. What are the acute or chronic aspects?</p>	<p>Acute : back pain</p> <p>Chronic : Asthma</p>
<p>9. Devise an appropriate treatment plan based on musculoskeletal components involved in the patient complaint</p>	<p>Goals for OMM Management:</p> <p>To improve mobility of the spine and chest, reduce low back pain and allow return to normal activity</p> <p>The treatment plan could include:</p> <p>Treatment of the areas of somatic dysfunction followed by postural x-ray studies. Sensory motor retraining and muscle strengthening in right ankle if not previously done.</p>

<p>10. How soon would you see the patient for OMM follow-up?</p>	<p>The patient should be seen with in a week of postural study. If he has a short leg he should then be treated with OMT and started with lift therapy.</p>
<p>11. What are the outpatient, inpatient, and emergency room considerations?</p>	<p>Outpatient- OMT treatment. Start lift therapy if sacral un-leveling is found. Lift therapy in a person with a flexible spine can begin with 1/8 inch heel lift. The patient should be seen every two weeks and treated with OMT and 1/8 inch can be added to the lift every two weeks as needed. A ½ inch lift can be placed at the heel before there are significant mechanical changes in the foot. If more than ½ inch lift is need to correct un-leveling then lift must be added to the half-sole of the shoe as well as the heel. Inpatient- pain control and OMT treatment Emergency- pain control</p>
<p>12. How are you going to talk to your patient about their complaint and your treatment?</p>	<p>If patient's pain is reduced following treatment, discuss with the patient the differential of what could be causing his back pain and how we can narrow the diagnosis by further treatment and x- rays Short term- reduce pain and correct somatic dysfunction (OMT treatments, exercise) Long term- prevent further back pain, reduce stress on ligaments(to prevent calcification and reduction of mobility), improve mobility (OMT, strengthening exercises, postural studies, possible lift therapy)</p>
<p>13. How will you communicate your findings, diagnosis, and rationale for OMM treatment to your preceptor?</p>	<p>Verbally present the case concisely along with my physical findings and treatment plan</p>
<p>14. What coding and billing information for evaluation and management and procedural services will you generate?</p>	<ul style="list-style-type: none"> • The diagnosis of somatic dysfunction in the assessment justifies the use of OMT • Somatic dysfunction diagnosis must be present in order to bill for the OMT that was performed. OMT is considered a procedure. • Documentation must reflect that the decision to perform OMT was made on that visit based on the physical findings and OMT was used for somatic dysfunction(s) identified • The procedure (OMT) and the E/M visit may both be billed with the same diagnosis code and during the same encounter if the decision to perform the procedure was made at the time of the encounter. Modifier -25 is used with the E/M code
<p>15. How would you record your encounter and OMT on your patient care logs?</p> <p>(Use OMT Procedures Services Chart)</p>	<p>Enter patient data, diagnosis date, and any special comments.</p>

Procedure Services: Osteopathic Manipulative Treatment							
Code		Description					
98925		Manipulation, 1-2 areas					
98926		Manipulation, 3-4 areas					
98927		Manipulation, 5-6 areas					
x	98928	Manipulation, 7-8 areas					
98929		Manipulation, 9-10 areas					
CPT Diagnostic Codes: Rank in order of Importance							
Diagnosis			Somatic Dysfunction				
Code	Description		Code	Description		Code	Description
		x	739.0	Head	x	739.5	Hip/Pelvis
		x	739.1	Cervical	x	739.6	Lower Extremity
		x	739.2	Thoracic		739.7	Upper Extremity
		x	739.3	Lumbar	x	739.8	Rib
		x	739.4	Sacrum/Sacroiliac		739.9	Abdomen

16. What is the Evidence Base?

Short Leg Syndrome (pages 983-989) Foundations for osteopathic medicine.

Short leg and spinal anomalies; their incidence and effect on spinal mechanics (1937) H. W. Bailey DO and C. G.

Beckwith DO Postural balance and imbalance. American academy of osteopathy 1982.

Exercise principles and prescriptions Principles of manual medicine. 3rd edition. 2003. Greenman, Philip. P493-505.

Search for the best evidence references:

An appraisal of the osteopathic literature is critical to ensure the osteopathic paradigm is foremost in the philosophical application of information to patient care. Search of relevant and associated data from the osteopathic literature:

OstMed-Dr (<http://www.ostmed-dr.com:8080/vital/access/manager/Index>)

Other literature bases (systems or synopsis engines):

- Poems (www.info poems.com)
- Family Practice Inquiry Network (www.fpin.org)
- PubMed
- Ovid
 - Google Scholar

Section III: Workshop/Lab (approximate time 60 minutes)

Facilitator demonstrates the key treatment techniques.

1. Participants divide into groups at the table
2. At each table, discuss and practice the appropriate palpatory diagnosis for this patient
3. Facilitator demonstrates the key treatment techniques:
4. Participants should practice the following techniques on each other:
 - Sensory motor retraining and muscle strengthening
 - Rx somatic dysfunctions
5. At each table, while the techniques are being practiced:
 - a. Identify and practice good body mechanics for the physician and patient in treatment
 - b. Discuss the treatment plan
 - c. Discuss what palpatory findings should change on the patient after OMM treatment
6. **Documentation**

Residents demonstrate an appropriate documentation of this case including findings and treatment here...

Section IV: Final Wrap-up and Questions/Answers