

Facilitator's Guide

Case Presentation

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

History: Constant achy pain present for past 18 months but worsening past several months. Currently 7/10. Worsens with activity. No injury noted. Resting and Ibuprofen help it to feel better. No radiation down his legs.

Meds: Advair (fluticasone/salmeterol)250/50 one puff twice daily, ibuprofen 800 mg every 4-6 hours as needed, multivitamin daily. Albuterol INH every 6 hours as needed.

Past Medical History: frequent ear infections, plagiocephaly as infant, asthma, motor vehicle collision.

Past Surgical History: open reduction internal fixation right ankle fracture, tonsillectomy, bilateral tympanostomy tubes.

Review of Systems: Denies issues with skin, CV, GI, or GU. Admits to wearing contacts but otherwise HEENT negative. Respiratory- reports good control of his asthma without frequent wheezing.

Physical Exam:

Vital signs: 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.

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

Cardio/Pulm: HRRR without murmur, all peripheral pulses strong and equal bilaterally. Lungs CTAB.

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

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.

Osteopathic 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,R₁, C 2-5 ERS_r, T 4-9 NS,R₁, T 11-L4 NS,R_r. 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.

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 factor.*

Section II: Mini-Lecture/Discussion (approximate time 20–30 minutes)

Discussion Questions

Teaching Points

<p>1. Propose an appropriate differential diagnosis / assessment</p> <p>- Primary diagnosis</p>	<p>Differential Diagnoses:</p> <ol style="list-style-type: none"> Differential diagnoses: Back pain, herniated disc, paraspinal muscle spasm, iliopsoas syndrome, spondylolisthesis, spondylolysis, short leg syndrome, scoliosis. Somatic dysfunction related to diagnosis: Cranium, Cervical, thoracic and lumbar spines, sacrum, pelvis lower extremity <p>Primary Diagnosis: Potential Short Leg Syndrome</p>
<p>2. 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>3. What pathophysiology & functional anatomy knowledge is pertinent for diagnosing/treating this patient</p>	<p>A. Pathophysiology— Asthma-airways are hypersensitive. When exposed to stimuli bronchi spasm. Then inflammation causes 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>B. Functional Anatomy- Is his sacral unleveling due to a short leg, is his scoliosis possible resulting from untreated plagiocephaly as an infant, and is his rib cage stiffness a result of asthma. This patient should undergo postural x- ray series after he has been treated with osteopathic manipulation.</p>
<p>4. 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>.</p> <p>Pain- responsible for bringing patient in to be seen</p> <p>Sympathetic influence- thoracic dysfunction and asthma</p>

<p>5. Devise an appropriate treatment plan based on musculoskeletal components involved in the patient complaint</p>	<p>Goals for osteopathic manipulative management: Include -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: 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>
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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	x	739.7	Upper Extremity
		x	739.3	Lumbar		739.8	Rib
		x	739.4	Sacrum/Sacroiliac		739.9	Abdomen