

Facilitator's Guide

Case Presentation

Chief Complaint: "I have horrible pain in the area behind my left ear wrapping around my left shoulder blade."

History: 60 year old Caucasian female with years of problems with generalized constant pain in many body areas accompanied by tenderness in many muscles and difficulty with poor sleep and fatigue. She relates these to her fibromyalgia and reports that she gets about 4 flares a year where she can barely get out of bed due to pain and overwhelming fatigue. She cannot describe well when this particular problem started and she thinks that it is all a part of her overall disease process.

Meds: Zocor (simvastatin) 40 mg PO q HS, Norvasc (amlodipine) 5 mg PO q d, Cymbalta 20 mg PO bid, (duloxetine), Ambien (zolpidem) 5 mg PO q HS prn sleeplessness, Zetia (ezetimibe) 10 mg PO q d, Celebrex (celecoxib) 100 mg PO bid prn pain, Valium (diazepam) 2 mg PO q HS, Sinequan (doxepin) 75 mg PO q HS, Skelaxin (metaxalone) 800 mg PO tid prn muscle spasm, Zyrtec (cetirizine) 5 mg PO q d, Microzide (HCTZ) 12.5 mg PO q d, Synthroid (levothyroxine) 125 mcg PO q d

Past Medical History: usual childhood diseases (chicken pox, mumps, measles, rubella), chronic bronchitis as a child, mononucleosis in college, endometriosis, infertility/decreased fertility, hypertension, hypothyroidism, arthritis, hyperlipidemia, hypercholesterolemia, autoimmune hepatitis, irritable bowel syndrome, muscle cramps in lower extremities, partial retinal detachment in right eye, obesity and deconditioning, psoriasis, fibromyalgia, seasonal allergies

Past Surgical History: tonsillectomy and adenoidectomy, wisdom tooth extraction, root canal X 4 with crown placement, appendectomy, exploratory laparotomy with endometriosis implant removal, total abdominal hysterectomy with bilateral salpingo-oophorectomy (with ¼ right ovary remaining), great hallux distal phalangeal joint removal

Review of Systems: Relates issues with many systems including constitutional, respiratory, cardiovascular, GI, musculoskeletal, neurologic, HEENT, skin, lymphatic and GU. Denies any psych issues.

Physical Exam:

Vital signs: BP: 124/72, HR: 75, RR: 16, Ht: 5'3", Wt: 250 lbs, BMI: 44.3

General: 60 year old Caucasian female, appears her stated age. Obese. She is alert and oriented X 3 and in no apparent distress.

HEENT: Tympanic membranes intact without fluid level, ear canals clear and free of wax. Nasal passages clear and pale, turbinates mildly edematous. Throat shows cobblestoning with post-nasal drip, no erythema, no sores, no edema of tonsillar pillars or uvula.

Cardio/Pulm: Heart rate and rhythm regular with a grade II/VI early systolic murmur auscultated. Pulses present and equal bilaterally at dorsalis pedis, radial artery, and carotid arteries. No carotid bruits auscultated. Lungs clear to auscultation bilaterally in all fields.

Osteopathic Structural Exam:

Patient was evaluated in seated and supine positions. Sphenobasilar synchondrosis compression, OA E, S_RR_L, C₂₋₄ E, S_RL, hypertonicity of levator scapulae, trapezius bilaterally, and anterior chest wall musculature, T₁₋₃ NS_LR_R, T₄ FSR_R, T₉₋₁₂ NR_LS_R, L₁₋₄ NS_LR_R, L₅ FSR_L.

Sacrum right unilateral sacral flexion. Posteriorly rotated left innominate. Femoroacetabular joint-restricted range of motion in internal and external rotation and extension. Marked hamstring hypertonicity and restriction. Posterior fibular head on the right lower extremity. Inversion of the navicular on the left lower extremity.

General forward head carriage with increased kyphosis from thoracic vertebral segments T₄ to T₁₀. Pain elicited with 4 kg of pressure at: base of occiput bilaterally, bilateral trapezius muscles, left low cervical muscles, bilateral lateral epicondyles, right gluteal muscle, right greater trochanter, and bilateral knees.

Abd: Abdomen obese, soft, non-tender to palpation, no guarding or rebound. Bowel sounds present in all four quadrants.

Neuro: CN II-XII intact. DTRs: 2/4 bilaterally in upper and lower extremities. Sensation intact bilaterally. Gait demonstrates hip stiffness, but normal stability and balance. Muscle strength 5/5 in lower extremities, 4/5 in upper extremities—patient reports pain at site where doctor was offering resistance which limited her ability to demonstrate muscle strength.

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 as well as primary and secondary diagnoses.</p>	<p>Differential Diagnoses:</p> <ol style="list-style-type: none"> 1. Differential diagnoses: <ul style="list-style-type: none"> Fibromyalgia Psoriatic Arthritis Rheumatoid Arthritis Polymyalgia Rheumatica Statin Induced polymyalgia Multiple sclerosis Lyme disease Epstein Barr Osteoarthritis Myofascial pain syndrome Chronic fatigue syndrome Major depression with somatic features <p>Primary Diagnosis Fibromyalgia</p> <p>Secondary Diagnosis: Obesity, Irritable bowel syndrome Insomnia Hypothyroidism</p> <p>Somatic dysfunction related to diagnosis: Cranium, Cervical, Thoracic, Lumbar spine, Sacrum, Pelvis, Lower Extremity</p>
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<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>Postural abnormalities due to guarding tenderpoints and deconditioning</p> <ul style="list-style-type: none"> - OA and thoracic dysfunction- viscerosomatic reflex due to autonomic dysregulation - Tenderpoints as defined by the American College of Rheumatologists as standard for fibromyalgia
<p>3. What pathophysiology knowledge is pertinent for diagnosing/treating this patient?</p>	<ul style="list-style-type: none"> • A. Pathophysiology— Dysregulation of the autonomic nervous system • Dysregulation of the neuroendocrine axis <ul style="list-style-type: none"> --elevated levels of substance P, altered levels of serotonin, decreased levels of growth hormone, and cortisol • Alterations in the sleep cycle <ul style="list-style-type: none"> --non-REM phase disturbance with intrusions of alpha waves --infrequent progression to stages 3 and 4 sleep
<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>. Due to her co-morbidities, all of these factors are important.</p>
<p>5. Devise an appropriate treatment plan based on musculoskeletal components involved in the patient complaint</p>	<p>Goals for osteopathic manipulative management—<i>includes:</i></p> <ul style="list-style-type: none"> • Modify autonomic input • Treat somatic dysfunction • Alleviate/reduce pain • Decrease congestion • Restore normal motion <p>The treatment plan could include:</p> <ul style="list-style-type: none"> • Exercise prescription • Self-stretching and strengthening exercises to reduce lordosis and development of postural strain • Cranial techniques • OA condylar decompression • HVLA to the cervical, thoracic, and lumbar spine. Alternatively, indirect techniques, muscle energy techniques, could be considered.

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