CASE REPORT

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The Use of Osteopathic Manipulative Treatment for Treatment of Sore Throat, Headache, and Facial Pain: A Case Report

Abstract

This case report describes the unusual occurrence of acute sinusitis without cervical lymphadenopathy and the application of Osteopathic Manipulative Medicine to treatment of the ensuing somatic dysfunctions. Osteopathic Manipulative Treatment techniques normalize the somatic dysfunctions and result in resolution of the patient's presenting symptoms. Of note, normalization of the SBS torsion appeared to spontaneously resolve the sacral dysfunction in this patient.

Case Report

Chief Complaint

27-year-old female presented to office complaining of sore throat, congestion, headache, and facial pain.

History of Present Illness

Patient stated her symptoms began about 1 week ago, worse when she bends over forward or her face is touched (she pointed to the frontal and maxillary areas bilaterally). She characterized the pain as being 6-7 out of 10 and dull. Stated her pain was worse in the morning. Her pain was only decreased by NSAIDs or Tylenol to 3-4 out of 10. She also complained of a "runny nose." She stated that she awakened with a sore throat every morning and coughed up greenish sputum tinged with blood and also produced greenish congestion from her nose each morning and several times throughout the day.

Past Medical History

Patient stated that she had been delivered "normally" without complications and had received all her childhood immunizations and not suffered any childhood illnesses. Patient stated all her immunizations are up to date. No surgical or trauma history. Patient has never been pregnant. Patient stated she has never suffered from nose bleeds. Her previous acute sinus infections were treated with Amoxicillin.

Allergies

No known drug or food allergies. Patient has a history of seasonal allergies.

Medications

No prescription or over-the-counter medications. Patient denies taking any

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Editor's Note

This case report, submitted to the Academy in 2007, was completed as part of Dr. Berkowitz's requirement toward earning the designation of Fellow in the American Academy of Osteopathy, conferred in 2017. Opinions expressed in this article are those of the author and do not necessarily reflect the viewpoint or official policy of the American Academy of Osteopathy, and it was edited to conform to *AAOJ* style guidelines.

Keywords

Cranial Rhythmic Impulse (CRI), Osteopathy in the Cranial Field (OCF), Osteopathic Cranial Manipulative Medicine (OCMM), Thoracic Somatic Dysfunction, Cervical Somatic Dysfunction, Sacral Somatic Dysfunction, Sinusitis without cervical lymphadenopathy, Pharyngitis

Table 1. *Physical examination.*

System	Findings
Vital Signs	BP = 110/68, P = 72, RR = 18, Temp = 100.6 degrees F, Height = 5'4", Weight = 115
General	White female, well-groomed and well-nourished, alert and oriented X 3, in mild acute distress.
Head	Normocephalic, atraumatic
Eyes	PERRLA, EOMI, no A-V nicking
Ears	Tympanic membranes intact, pearly gray, no cerumen bilaterally
Nose	Nares patent, no congestion or discharge, no epistaxis
Throat	Moist, tongue and uvula midline without deviation, no tonsilar hypertrophy. + erythema and exudates.
Neck	No masses, lymphadenopathy, or thyromegaly appreciated
Cardiac	Regular rate and rhythm, no murmurs, rubs, or gallops
Respiratory	Clear to auscultation bilaterally
Abdominal	Soft, non-tender, normal bowel sounds appreciated, no hepatosplenomegally.
Genital/Rectal	Deferred
Neurological	Cranial nerves II-XII grossly intact; deep tendon biceps, triceps, brachioradialis, patellar, and achilles tendon reflexes were all 2+; muscle strength at levels C5-T1 and L2-S1 were 5/5 all around. Normal gait. Heel, toe, tandem walk normal. Romberg negative.

herbals or supplements.

Family Medical History

Mother and Father are both 56 years old and in good health.

Social History

Patient is a single, never married, Army officer medical student. She previously was a Registered Dietitian on active duty as an Army Officer. Patient stated she had never used tobacco products or illicit drugs. She admits to drinking 2-3 cups of caffeinated beverages daily and to consuming alcohol socially on weekends.

Review of Systems

Non-contributory except as noted above in the chief complaint, history of present illness, and past medical history.

Osteopathic Structural Examination

Structural exam revealed contracted muscles bilaterally at C4-6 but with increased hypertonicity on the right. T2 ERRSR, T3-8 NSLRR, C2 FRRSR. Sacrum was found to have a left on right backward torsion. Left torsion and no lateral strain of her sphenobasilar symphysis was appreciated. Her cranial rhythmic impulse was appreciated to be about 8 cycles per minute.

Medical Decision Making

Diagnosis

- Acute Sinusitis, probably bacterial
- Pharyngitis, probably secondary to post nasal drip due to sinusitis
- Somatic Dysfunction Thoracic Spine
- Somatic Dysfunction Cervical Spine
- Cranial Somatic Dysfunctions: SBS left torsion; Decreased CRI

Treatment Plan

Osteopathic Manipulative Treatment (OMT) to sacrum (muscle energy), upper thoracic spine (HVLA and Still Techniques), SBS (cranial – frontal lift, volmer pump, and CV4), and cervical spine (Still Techniques). If patient suffered a treatment reaction, she was instructed to take Ibuprofen 800mg three times daily for 4 days. This would also help reduce her fever. If no treatment reaction, then she was instructed to take Acetaminophen 1000 mg po prn for fever or pain.

Sputum and samples of nasal congestion were sent to the lab for culture and sensitivity. The lab report indicated infection with S. pneumoniae susceptible to TMP/SMX. Patient was prescribed a 10-day course of TMP/SMX 160/800 mg po bid.

No records were available from other sources for review. No additional tests or imaging was ordered until after a trial of OMT and course of antibiotic treatment could be performed and evaluated. If no improvement had been noted, then a sinus scan would have been ordered. No procedures or surgeries were indicated at this time.

Discussion of Course and Response to Treatment

Patient followed-up in 2 weeks. Due to her history of multiple prior acute episodes of sinusitis treated with Amoxicillin, the phyiscian decided to have cultures and sensitivities performed before prescribing any antibiotic regimen. Her cranial somatic dysfunctions resolved and CRI increased to 10 cycles per minute. At presentation, the patient had not complained of low back pain and her sacral somatic dysfunction was an incidental finding; however, it was consistent with her SBS torsion. Her thoracic and cervical dysfunctions were normalized and returned sympathetic and parasympathetic tone to normal. While it is unusual to have a sinus infection without cervical lymphadenopathy, lymphadenopathy was not appreciated in this patient; perhaps this is an example of the old adage of "treat what you find." Cervical hypertonicity and somatic dysfunctions were present and were treated. The patient stated that her pain symptoms were gone 24 hours after the treatment above. She also reported that her rhinorrhea and post nasal drip seemed to be deceased. No treatment reaction was suffered. Her complaints of sore throat also abated following OMT, most probably due to the decreased congestion and post nasal drip. Her pharyngeal erythema and exudate cleared following completing her course of antibiotics, as prescribed.

The details of sinus congestion and drainage may be found in Kuchera and Kuchera,[6,pp 12, 15, 16, 202] as well as in Foundations.[9,pp372-376] With respect to this patient's sinusitis, both viral and bacterial infections result in inflammation. In a worsening cycle, inflammation can predispose to infection. Breaking this cycle may require treatment of both the sympathetics as well as the parasympathetics. The cell bodies for the cervical sympathetic ganglia may be found at spinal levels T1-T4. This is possibly the etiology for this patient's thoracic somatic dysfunctions. The insufficient treatment of the underlying bacterial infection with Amoxicillin seems a plausible explanation for this progressive cycle of infection causing inflammation and inflammation fostering further infection. Once the bacterial etiology was removed via treatment with appropriate antibiotics, this cycle was broken. The OMT was appropriate to breaking this cycle as discussed above. Normalizing the SBS torsion helps restore the concomitant sacral dysfunction,[7] which appeared to spontaneously resolve in this patient.

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