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Case report

Osteopathic approach to treating a patient with new onset low back pain following injury reveals unusual presentation of bilateral and symmetric symptoms: A case report

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ABSTRACT

This case suggests the efficacy of Counterstrain techniques in the immediately acute setting. What is unusual in this case is the bilateral and symmetric nature of the patient's tender points and symptoms. There appears to be an absence of this particular discussion within the osteopathic literature regarding this. This may indicate a more medial somatic dysfunction; however, no posterior or spinous process tender points were appreciated in this patient. The case illustrates that further research as to the prevalence of similar presentations of symptoms, and to the efficacy of a purely flexed counterstrain treatment for bilateral symmetric conditions, is warranted.

Implications for practice

- This case illustrates how the osteopathic approach to patient diagnosis and treatment may reveal unusual presentation of symptoms.
- What is unusual in this case is the bilateral and symmetric nature of the patient's tender points and symptoms.
- The case illustrates that further research as to the prevalence of similar presentations of symptoms, and to the efficacy of a purely flexed counterstrain treatment for bilateral symmetric conditions, is warranted.

1. Introduction

Osteopathic Manipulative Treatment (OMT) has been used to treat muscoluskeletal pain due to injury for over 100 years. OMT has been applied to patients with both acute and chronic conditions. This case reports the application of OMT to treating the acute patient within hours following injury. This case reports how the osteopathic approach to diagnosing and treating the patient revealed an unusual presentation of bilateral and symmetric symptoms.

The presence of bilateral tender points has been associated with chronic widespread pain and fibromyalgia syndrome (FMS). Wolfe and associates reported the prevalence of FMS as approximately 2.0% in the general population based on studies in the U.S [1]. Croft and associates proposed that fibromyalgia is on a continuum of musculoskeletal pain associated with the presence of tender points [2]. The presence of bilateral tender points has also been associated with polymyalgia rheumatica [3] and costochondritis [4]. No studies of the epidemiology of bilaterally symmetric tender points could be found in a PubMed search of the medical and osteopathic literature.

2. Case

A 23-year-old female presented to the clinic with low back pain. The patient is a first-year osteopathic medical student who was hurt several hours earlier that day while being a “patient” during a practical exam of osteopathic manipulative treatment techniques. The patient stated that her pain began about two hours after she finished being a “patient” during the exam. The patient served as a patient for 5 student doctors at each of two different exam stations,

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consecutively. The osteopathic techniques the patient had sustained during the exam included both muscle energy and high-velocity/low-amplitude (HVLA) techniques in the lumbar region. Specifically, the examined techniques included muscle energy lumbar seated Type I Dysfunctions [5] (p 272-272), lumbar seated Type II Dysfunctions [5] (p 274–275), lumbar lateral recumbent Type I Dysfunctions [5] (p276-277), lumbar lateral recumbent Type II dysfunctions [5] (p 278–279), HVLA lumbar lateral recumbent long-lever Type I dysfunctions [5] (p 372), HVLA lumbar lateral recumbent long-lever Type II dysfunctions [5] (p 373), and HVLA seated short-lever Type II dysfunctions [5] (p 376) techniques. The patient stated her pain was sharp, constant, and did not radiate. She said that her pain level was 6/10. She indicated (by pointing with her hand) that the area of her pain was lower thoracic spine to the upper lumbar spine. The patient stated that her pain was new onset and that she had no prior history of any low back pain.

The patient stated she had no prior medical or surgical history. There was no history of any prior trauma. There were no known drug or food allergies. The patient was not taking any medications or supplements. The family medical history was non-contributory. The review of symptoms was also non-contributory, except as described above for the presenting (i.e., “chief”) complaint and history of present illness.

Physical examination revealed a well-hydrated and well-nourished 23-year-old female, alert and oriented, in acute moderate distress due to her pain. Neurological examination showed the deep tendon biceps, triceps, brachioradialis, patellar, and achilles tendon reflexes were all 2 + bilaterally. The patient has normal gait; heel, toe, and tandem walk were all normal. No motor or sensory deficits were appreciated. Romberg and Spurling tests were negative.

Osteopathic Structural Examination revealed negative standing flexion test, negative seated flexion test, negative Spring test and negative straight leg test. There were no restrictions or loss of range of motion in flexion, extension, or sidebending. No tenderness was appreciated at the anterior superior iliac spines bilaterally or at the posterior superior iliac spines bilaterally. Mild hypertonicity of the paraspinal muscles at T11-L3 was appreciated. Physical examination revealed positive anterior lumbar tender points at AL3, bilaterally, and AL4, bilaterally.

The patient was diagnosed with lumbar spine pain (ICD-10 Code M54.5), muscle spasm (M62.830), and lumbar spine somatic dysfunction (M99.03).

3. Treatment plan

Osteopathic Manipulative Treatment (OMT) to the paraspinal muscles consisted of Prone Pressure with Counterleverage Soft Tissue techniques [5]. (p 109) This technique was applied bilaterally and a decrease in the hypertonicity of the paraspinal muscles was noted. The anterior lumbar counterstrain tender points were treated using anterior lumbar region Counterstrain techniques to each of the AL3R and AL3L tenderpoints [5]. (p 176) Application of this technique was performed to each side separately. Upon completion of the technique to each side at AL3R and AL3L, the patient stated the pain had resolved and also a re-check of the tender points at AL4R and AL4L revealed that the patient's pain at these locations had resolved spontaneously without further application of OMT.

4. Discussion of course and response to treatment

The decision to use soft tissue techniques for treating the paraspinal muscles follows long-held ideas regarding the application of these techniques [5]. (p 75–80) [6,7], for myofascial structures and tissues. Treating tender points using Counterstrain also follows long-held ideas regarding their application [5]. (p 140–141) [8], Immediately following treatment, the treated tissues were normalized and the patient's symptoms had resolved. The patient was counseled to increase water intake and to take Ibuprofen 600 mg with food TID for 5 days for pain or inflammation secondary to any treatment reaction arising within the next 24–48 h. She was instructed to return to the clinic as needed. Months later, the patient reported that her symptoms remained resolved.

This patient's symptoms, age, and gender are not consistent with a diagnosis of polymyalgia rheumatica. The location of the patient's symptoms is not consistent with a diagnosis of costochondritis. Finally, the spontaneous and complete resolution of the patient's systems is not consistent with a diagnosis of either chronic widespread pain or FMS.

The spontaneous resolution of the patient's tender points at AL4R and AL4L is fully consistent with the literature [5]. (p 140–141, 176) [4,9], This case suggests the efficacy of Counterstrain techniques in the immediately acute setting. What is unusual in this case is the bilateral and symmetric nature of the patient's tender points and symptoms. There appears to be an absence of this particular discussion within the osteopathic literature [5–9] regarding this. Glover and Rennie state that the presence of the Counterstrain tender point is determined by “pressing on the left and right sides of the spinous processes to identify the most tender side.” [8] (p 759) Jones also states that the treatment “force applied is sidebending” [9]. (p 67) These statements indicate a non-symmetric, unilateral treatment positioning; therefore, the tender points being treated must also be non-symmetric and unilateral. Neither Jones nor Glover and Rennie discuss treatment positioning for bilateral, symmetric tender points. This supports that the presentation of symptoms in the patient in this case is unusual. This may indicate a more medial somatic dysfunction; however, no posterior or spinous process tender points were appreciated in this patient. Further study as to (1) the prevalence of similar presentations of symptoms, and (2) the efficacy of a purely flexed counterstrain treatment for such bilateral symmetric conditions, is warranted.

Ethical statement

The author has no conflicts of interest and this paper has not previously been submitted for consideration to the IJOM and is not currently under consideration for publication in any other journal (either print or electronic). The paper has not been published elsewhere previously in any form (either print or electronic).

Author contribution statement

The author (MRB) is solely responsible for the content of this paper. He conceived this project, wrote the first draft of the manuscript, edited, and approved the final version of the manuscript.

Conflict of interest statement

The author (MRB) states that he has no conflicts of interest.

References

[1] Wolfe F, Ross K, Anderson J, Jon Russel I, Ilbert L. The prevalence and characteristics of fibromyalgia in the general population. Arthritis Rheum 1995;38:19–28.

[2] Croft P, Burt J, Schollum J, Thomas E, Macfarlane G. More pain, more tender points: is fibromyalgia just one end of a continuous spectrum? Ann Rheumatic Dis 1996;55:482–5.

[3] Helliwell T, Barraclough K, Dasgupta B, Mallen CD. Diagnosis and management of polymyalgia rheumatic. Br J Gen Pract 2012 May;62(598):275–6.
[4] Proulx AM, Zryd TW. Costochondritis: diagnosis and treatment. Am Fam Physician 2009;80(6):617–20.
[5] Nicholas AS, Nicholas EA. Atlas of osteopathic techniques. second ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2012.
[6] Kappler RE, Kuchera WA. Diagnosis and plan for manual treatment: a prescription. In: Ward RC, editor. Foundations for osteopathic medicine. second ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2003. p. 574–9.
[7] Ehrenfeuchter WC. Soft tissue/articulatory approach. In: Chila AG, editor. Foundations of osteopathic medicine. third ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2012. p. 763–5.
[8] Glover JC, Rennie PR. Strain and counterstrain approach. In: Chila AG, editor. Foundations of osteopathic medicine. third ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2012. p. 749–57.
[9] Jones LH. Strain and counterstrain. Newark, OH: American Academy of Osteopathy; 1981.