

Improvements in Endometriosis, Dysmenorrhea and broad impacts on Quality of Life in a 24-year-old female: A case report

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Background: A 24-year-old female with a history of endometriosis, migraines, and chronic spinal tension attended for subluxation-based Chiropractic.

Intervention: The patient commenced a course of care during which she was checked and adjusted according to the Advanced Biostructural Correction Technique, over a 12-week period, with her care frequency modified over the course of her attendance.

Outcomes: The patient reported reductions in spinal pain, improved posture, enhanced sleep, and a significant decrease in menstrual pain and cramping. Functional improvements were also observed across occupational, physical, and social domains.

Conclusion: This case highlights the potential role of Chiropractic care as a conservative, drug-free approach in complex presentations involving musculoskeletal dysfunction and menstrual-related symptoms, warranting further investigation into underlying mechanisms.

Indexing Terms: Chiropractic; Subluxation; Advanced Biostructural Correction Technique; ABC; Endometriosis; Dysmenorrhea; Quality of Life.

Introduction

Endometriosis is a chronic inflammatory condition commonly associated with pelvic pain, dysmenorrhea, and reduced Quality of Life, with many patients experiencing persistent symptoms despite pharmacological or surgical management. (Chapron et al., 2019; Zondervan et al., 2020)

Alongside these visceral presentations, there is a recognised overlap with musculoskeletal complaints, including spinal pain, postural dysfunction, and heightened sensitivity to mechanical stimuli, reflecting both peripheral and central contributions to pain. (Morotti et al., 2017; Stratton & Berkley, 2011)

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dysmenorrhea on health is growing, specific research on Chiropractic and the female reproductive system remains in its infancy. While we do have case report data, and a larger study on pelvic floor function, specific studies pertaining to endometriosis and dysmenorrhea have not yet been completed.

The literature of Chiropractic can only be described as inconsistent in its reporting of dysmenorrhea and endometriosis

We do know that chronic pelvic pain conditions, including endometriosis, have been increasingly associated with central sensitisation and altered pain processing, which may extend beyond the primary site of pathology. (As-Sanie et al., 2012; Woolf, 2011) In parallel, dysfunction within the autonomic nervous system has been implicated in both menstrual disorders and chronic pain states, suggesting a broader neurophysiological component to symptom expression. (Benarroch, 2006)

Research is beginning to give us insight into how Chiropractic care may manifest neurophysiological changes as subluxations are reduced and optimal nervous system function is supported. Contemporary research proposes that spinal manipulation (and specifically the Chiropractic adjustment) may create neuroplastic changes that in turn impact the modulation of afferent input, descending pain inhibition, and autonomic responses. (Bialosky et al., 2009; Haavik & Murphy, 2012; Haavik et al, 2024) Emerging clinical research has explored the potential for manual therapies to influence menstrual pain, with some evidence suggesting short-term pain reduction, though the overall quality of evidence remains limited and inconsistent, and Chiropractic-specific research is yet to be undertaken.

Concurrently, systematic reviews of spinal manipulation for non-musculoskeletal conditions, including dysmenorrhea, have reported inconclusive or negative findings, highlighting the need for cautious interpretation and further high-quality research. While spinal manipulation, generally speaking, does not capture the specificity of the Chiropractic adjustment, this uncertainty reflects both methodological limitations and an incomplete understanding of underlying mechanisms.

This case report describes a young female with endometriosis and multiple coexisting complaints, examining the impact of Chiropractic care on spinal pain, menstrual symptoms, and overall functional capacity.

Case details

A 24-year-old female with a sedentary lifestyle and limited prior exposure to Chiropractic care presented with a history of endometriosis, migraine headaches characterised by visual aura, nausea, and light sensitivity, and a previous shoulder injury sustained in 2019 involving tendon damage during a workplace incident. The shoulder injury had been managed with physiotherapy yet residual symptoms persisted with repetitive use.

The patient had previously relied on pain medication for endometriosis but discontinued use due to drowsiness and concerns regarding dependency. She also reported low iron levels, for which she had recently received an infusion.

The primary complaint was persistent neck and upper thoracic pain, described as a constant tension radiating toward the ear and head, accompanied by a subjective sense of tightness in the cervical and shoulder regions. Secondary complaints included ongoing shoulder pain and inflammation with repetitive movements, significant menstrual pain associated with endometriosis with referral into the back and knees, migraine headaches, and shortness of breath with associated tachycardia during physical exertion.

These symptoms had a notable impact on Activities of Daily Living. The patient reported reduced work performance, particularly later in the day, and had ceased gym participation due to migraines and cardiorespiratory discomfort. Social engagement was becoming limited, especially during the menstrual phase of each cycle, leaving the patient bed-ridden for two weeks out of each month.

Interpersonal strain was reported within family relationships due to a perceived lack of understanding of her condition.

Clinical findings

Postural assessment identified patterns consistent with upper and lower crossed syndromes, with anterior head carriage and anterior pelvic tilt. Palpation revealed tenderness and areas of allodynia across multiple spinal regions. Assessment procedures included postural analysis using Posture Screen Mobile, subjective health questionnaires, manual muscle testing, and a modified Fukuda stepping test.

Vertebral subluxations were identified at multiple levels, including C2, C6, T1, T4, T6, T10, and L5. These findings were considered in the context of the patient's presenting symptoms, including sleep disturbance (Nocturia), altered energy levels, intermittent upper limb paraesthesia, gastrointestinal sensitivity (irritable bowel syndrome), and dysmenorrhea.

Chiropractic care was delivered using the ABC Technique with an emphasis on reducing subluxation, improving spinal function and improving postural balance. The initial care plan involved two visits per week over a 12-week period. Following the first week of care, treatment was temporarily interrupted due to severe menstrual pain that prevented the patient from leaving her home. Care subsequently resumed with an increased frequency of three visits per week until the first reassessment at visit number twelve.

Additional recommendations included the incorporation of daily movement and joint-to-joint mobility exercises. The primary goals of care were to improve postural alignment, reduce upper back and shoulder tension, address anterior pelvic tilt, and alleviate low back discomfort.

Outcomes

Reassessment involved repetition of initial objective measures alongside patient-reported outcomes. The patient reported a marked reduction in neck and upper back pain, improved postural awareness, enhanced sleep quality, and decreased perceived stress levels. Of particular note was a significant reduction in menstrual pain and cramping during subsequent cycles, with fewer symptomatic days and improved overall manageability.

The patient also reported resolution of shallow breathing and exercise-related discomfort, which enabled a return to physical activity and increased engagement in both social and

occupational settings. These changes were reflected in subjective feedback and supported by improvements in previously identified functional limitations.

Whilst the patient originally presented for neck and back pain, this latter finding of a significant reduction in menstrual pain and a marked increase in her ability to manage her condition, became the most meaningful aspect of functional improvement from care. Understandably, this became a significant contributor to increased quality of life. Given her increased ability to engage with work, family and friends, the cascade of improvements is (and remains) significant.

Discussion

This case describes a patient with a complex clinical presentation who experienced improvements beyond the musculoskeletal complaints for which she presented, and into systemic domains following Chiropractic care. The observed reduction in menstrual pain and associated symptoms is of particular interest, given the chronic and often refractory nature of endometriosis-related dysmenorrhea.

While causation cannot be established from a single case, the wide-ranging symptomatic improvement concomitant with subluxation-based care suggests a potential role for Chiropractic intervention in influencing factors relevant to menstrual pain. One plausible mechanism involves modulation of the autonomic nervous system, which is known to interact closely with pain processing and visceral function. (Benarroch, 2006) Recent controlled research has demonstrated that spinal manipulation directed at the sacroiliac region may influence autonomic balance and reduce menstrual pain, supporting a possible neurophysiological pathway. (Benarroch, 2006)

Reductions in central sensitisation may also account for the decreased pain perception observed in this case, including improvements in allodynia, migraine frequency, and overall symptom burden. Central sensitisation is increasingly recognised as a key contributor in chronic pelvic pain and endometriosis, where pain processing becomes amplified beyond peripheral pathology. (As-Sanie et al., 2012; Woolf, 2011)

At the same time, it is important to interpret these findings within the broader evidence base. Large scale Chiropractic studies have yet to be undertaken. Other research suggests that manual therapy may provide short-term pain relief with a favourable safety profile, although placebo and contextual effects cannot be excluded. Earlier case-based and pilot investigations have also reported reductions in menstrual pain following Chiropractic care, though these designs inherently limit causal inference.

While it may be said that Chiropractors possess a significant amount of anecdotal evidence for improvements in reproductive health, as a profession, we must put our best foot forward and create the evidence base relevant to such a large percentage of people in our care.

In this case, the patient's increased capacity to participate in work, exercise, and social activities reflects a meaningful improvement in Quality of Life. These functional gains are clinically relevant and align with patient-centred outcomes, particularly in chronic conditions where symptom burden extends beyond pain alone.

Conclusion

This case highlights the role of Chiropractic care as a non-pharmacological option for individuals seeking alternatives to medication-based management. However, the current evidence base does not yet allow definitive conclusions regarding efficacy for menstrual disorders, thus claims should be considered within the context of existing limitations.

Limitations in this case include the disruption to the care schedule early in the treatment period, which may have influenced outcomes. As a single case report, findings are not generalisable. Future research is warranted to investigate the mechanisms by which Chiropractic care may influence autonomic regulation, central pain processing, and menstrual health, particularly in conditions such as endometriosis.

Chiropractic care in this case was associated with improvements in spinal pain, posture, sleep, and functional capacity, alongside a notable reduction in menstrual symptoms. These findings support further exploration of chiropractic as a conservative approach in complex presentations involving both musculoskeletal and systemic components.

Evidence context

This descriptive study is an observational design and is limited as a case study $n = 1$, lacking controls. The effect of potential confounding factors, including comorbidities, cannot be excluded. We recognise that subluxation identification and correction is the art of the individual Chiropractor.

The findings could support the clinically relevant hypothesis that the identification and correction of spinal subluxation and lumbopelvic functional dysfunction are modifiable contributors to the effective management and resolution of the clinical presentation of menstrual disorders such as endometriosis and dysmenorrhea. Of particular interest is the reported improvement in this patient's Quality of Life.

This report is eligible for inclusion as 'expertise' bringing clinical insights into the JBI FAME evidential ring (JBI Manual for Evidence Synthesis; 2024) to inform evidence-based healthcare in general and the science of Chiropractic in particular.

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About the Chiropractor

Dr Hawkes has been a practising chiropractor for over a decade and is currently practising in Mount Hawthorn, Perth, WA.

David is passionate about family wellness care and works with many people who suffer from headaches and migraines. While these are passion points, Dr David serves a broad spectrum of practice members.

