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ABCA Advanced Bio-Structural Correction Australasia

Resolution of regular and severe muscle spasms in a 42-year-old male with Fish Vertebrae: A case report

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Background: Background: A 42-year old male presented for chiropractic care with a primary complaint of severe and debilitating muscle spasm, and a fish vertebrae with significant degeneration.

Intervention: The patient underwent chiropractic care using the Advanced Biostructural Correction protocol, with meningeal releases.

Outcomes: The patient was able to undergo care with no adverse reactions, and by ten weeks under care, had experienced a complete resolution of spasms, and a ninety per cent increase in range of motion. This drastic decrease in pain and increase in mobility made a significant difference to his quality of life.

Conclusion: In this case, the patient experienced lasting improvements that had not occurred under modalities. Chiropractic care should be considered even for degenerative conditions, for which other modalities have not been effective.

Indexing Terms: Chiropractic; Subluxation; Advanced Biostructural Correction Technique; ABC; Fish vertebrae.

Introduction

Fish vertebrae describe a smooth, biconcave deformity of the vertebral endplates that is most apparent in the lumbar spine on lateral imaging. In adults, this pattern reflects reduced bone strength and altered load distribution through the vertebral body.

The sign was popularised from mid-20th-Century descriptions of postmenopausal osteoporosis and remains a useful radiologic clue rather than a diagnosis in itself. In clinical settings it tends to travel with back pain, stiffness, and secondary muscle guarding that limit mobility and sleep, problems that matter to patients long before a radiology report arrives. (1)

A biconcave vertebral contour has a broad differential. Sickle cell disease may show related vertebral phenotypes and can occasionally present with a "'-mouth' appearance, though an H-shaped vertebra is more typical. Contemporary case reports and reference reviews emphasise that codfish

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vertebrae are common in osteoporotic spines and may occur at one or multiple levels, so correlation with the broader clinical picture is essential. (2)

Fish vertebrae. From onlinelibrary.wiley.com

From a conservative care perspective, the radiographic sign does not reverse, yet symptoms often do. When vertebral bodies are weakened, paraspinal muscles work harder to stabilise motion segments, which can provoke spasms and pain. Chiropractic care aims to optimise joint mechanics, reduce mechanical irritation, and normalise sensorimotor control by checking and adjusting subluxations where indicated. For some adults with fish-vertebra patterns, correcting subluxation and improving posture can reduce nociceptive drive from overloaded tissues and ease protective muscle hyperactivity, which may translate to better function and quality of life. This case report documents outcomes in an adult with fish vertebrae and severe muscle spasm under subluxation-based Chiropractic care. (3)

Case details

A 42-year-old male entrepreneur presented for Chiropractic care with chief complaints of a fish vertebrae at T12 and marked disc degeneration at T11. He described himself as having a high activity level (exercising three times per week), but was irregular with Chiropractic care. He reported having multiple spasms around the thoracolumbar junction (T12) daily, with each lasting approximately twenty minutes. During these spasms, which he described as debilitating, he would have to get up and walk in order to relieve the spasms. This occurred two to three times daily.

The issue was long-standing with onset during his teenage years. He attributed it to a fall from the monkey bars at age ten, though he could not confirm that this was definitely the case. The condition was now described as progressive, worsening over the past two years. The spasms would occur erratically, but was triggered by lying flat on his back or stomach. Movement and exercise helped his mobility but not his spasms.

While the condition had worsened over the past two years, the frequency and severity had increased over the past six-to-twelve months and now affected his breathing, exercise and sleep. Due to this increase, he had seen several therapists over the two year period. He had also seen multiple General Practitioners and had an MRI examination referred by a neurologist. At this point, he was informed there was no diagnosis or treatment that could be done to alleviate his condition.

Clinical findings

Upon examination, a marked decreased in range of motion was detected in the cervical spine, with restriction in all directions occurring due to 'pulling' in the thoracolumbar region. The patient had limited lumbar range of motion due to acute pain in the thoracolumbar area, particularly in right lateral flexion of the torso, and in flexion and extension of the lower back. There was marked pain at the thoracolumbar junction upon static palpation in all positions, especially with posterior-to-anterior force while lying prone.

There were no neurological signs or symptoms present, and blood tests for sickle cell disease were negative. This is relevant because 'fish vertebrae' is a known deformity associated with sickle cell disease.

Standing x-rays were taken alongside Posture-Pro photos before treatment (and at both reviews). Subluxations were identified at T12, where the fish vertebrae was located, and at the highly degenerated T11 vertebrae. The patient had a mild S-shaped thoracolumbar scoliosis, with a major curve in the mid-lower thoracic spine convex to the left (Cobb angle = 16 °) and a minor curve convex to the right at the thoracolumbar junction (Cobb angle = 11 °).

He also had a Grade 1 retrolisthesis at C3/4 with mild loss of intervertebral disc space height.

Management

Following examination the patient began a care plan during which he was managed using the ABC protocol. This included meningeal releases where and when identified. Adjustments frequently included the Anterior Primary Biostructural Pathologies, the sacrum and hips as well as the ankles, feet and fibula heads when identified as requiring adjustment. Anterior ribs were also regularly released.

The patient was seen for three adjustments during the first four weeks, and then two adjustments for three weeks. Reviews occurred every twelve sessions. While primary aims of care were to decrease the severity and frequency of the muscle spasms, the patient also wished to achieve more mobility in the whole spine, especially in the thoracolumbar spine, to increase his breathing capacity, and to increase the quality and quantity of his sleep.

Thus, whole spine care was delivered, with care taken to avoid applying any physical pressure directly onto T11/T1. This was to avoid creating a spasmodic episode as had occurred with previous therapists.

Outcomes

Upon commencing the care plan the patient immediately noted improved movement of his spinal joints following the anterior wall adjustment. This had not occurred with other treatments or therapies.

At the four week review the patient reported a 50% subjective improvement in his symptomatology. His spasms were now infrequent and had dropped from three times per day to three times per week. He was now able to achieve increased range of motion in all directions, with decreased tightness throughout his spine, and no adverse reactions to pressure or palpation.

By his 10-week review his spasms were completely resolved with a 90% improvement in all range of motion measures. There was no back tightness and no adverse reactions to pressure, palpation or adjustments.

He noted that his sleep had improved significantly due to the decrease in spasms and the decrease in anxiety related to spasming when lying flat. Posture Pro photos documented his progress, which occurred alongside decreases in subluxation and other objective measures. His slump test and valsalva had also normalised.

While various treatments had been tried over the years, nothing had provided lasting relief. The patient remarked that '*Not only have the spasms disappeared, but my overall posture and mobility have also improved greatly, allowing me to move more freely and with far less discomfort. It's been a remarkable turnaround in managing a problem that had troubled me for so long*'.

Discussion

In this case the patient's symptoms appeared to be closely linked to the degenerative changes associated with fish vertebrae. The structural weakness of the affected vertebrae likely increased mechanical stress on adjacent segments, leading to localised instability and muscular guarding. As the body attempted to compensate, surrounding muscles went into protective spasm to stabilise the area, which in turn contributed to pain, stiffness, and reduced mobility.

Chiropractic care was directed toward reducing this compensatory stress rather than applying direct force to the degenerated vertebrae. We propose that by adjusting the subluxation, we enabled better adaptation and nervous system communication.

This approach aimed to calm the protective muscle response. Importantly, this strategy also avoided directly adjusting the fragile and tender symptomatic area, minimising the risk of aggravating it and reducing the patient's apprehension about care.

Conclusion

Through this process, the patient experienced a reduction in muscle spasms and pain, along with improved ease of movement. While structural changes to the degenerated vertebrae are unlikely to be visible on follow-up imaging, the improvements in symptoms and function suggest that chiropractic care successfully addressed the secondary effects of the degeneration.

This case highlights that meaningful clinical outcomes can be achieved by influencing compensatory patterns and restoring balance to the spine, even when direct adjustment of the affected vertebrae is not performed.

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About the Chiropractor

Dr Adam Schober holds a Bachelor of Chiropractic Science and a Master of Chiropractic, and has treated thousands of clients over the course of his career. The owner of North Sydney Spine and Health, he is passionate about personalised care, and has been using the ABC™ Technique since 2010.