

Female adolescent soft-baller with upper-cervical subluxation.

Joseph Ierano

Indexing Terms: adolescent; upper cervical technique; subluxation.

About this case

This is a 'pre-case-report' written in the chiropractor's real-world language. The express purpose is to document an interesting case from the day-to-day perspective of a practitioner in a suburban practice in Australia, thus adding to the overall body of evidence for chiropractic. The two elements are the report itself as written by the chiropractor, and '*what we know*' compiled by the editorial team.

The method is Quantitative Autoethnography with Thematic Report of the chiropractic literature held within the profession's referent data base, the *Index to Chiropractic Literature*.

Our intent is to provide primary evidence of chiropractic practice which will be indexed and retrievable to guide future case reports prepared by others in the formal 'CARE' style, and to inform the development of research protocols. [Editors]

... it is a fine line for a chiropractor to decide whether a particular case is appropriate for a trial of chiropractic care or specialist referral ...'

Quick Tap or Scan:



Female Soft-baller with Cervical Subluxation

History

[Practitioner] The patient was known to me since birth as a 3rd generation family patient. At this presentation she was aged 14 and attended with her mother. Her early childhood care was unremarkable and focused within a context of family spinal care for health maintenance.

In her teens she developed excellence in the sport of Softball, primarily as a powerful pitcher of great accuracy. Upper cervical chiropractic Atlas Orthogonal (AO) care coupled with full spine adjustments as indicated were reported by her mother and self to enable the progress of her performance. Her pitch was high speed up to 100kph (62 mph). Like many elite sports the success is reliant on largely asymmetrical dominant-hand-sided power and precision. This brings with it problems commonly presenting to the chiropractor. Over-use sports injuries are familiar to the author in young, high achievers.

In two consecutive weekends she played important interstate tournaments and pitched in 9 games in the first weekend, and 11 in the next. This sort of stress on young, developing body tissue is fraught with potential harm through eventual fatigue.

We had kept her in good function and alignment through her early career until August 2017, and after these two tournaments presented with severe neck pain in Jan 2018.

Examination

Antalgia was noted in head tilt. Spinal palpation was specifically revealing for the upper cervical spine; extreme sensitivity to pressure suggesting allodynia and poor alignment in asymmetrical muscle tone presentation. Ranges of motion were restricted and rapid motion almost impossible without pain. Especially left rotation. Serious pathology needed to be ruled out. The most rapid assessment was to order a set of plain radiographs, and organise an MRI with subsequent specialist referral to follow as soon as possible. Radiographs could be assessed almost immediately and the AO series considered superior as it inter-relates whole cranio-cervical posture.

Imaging

Plain radiographs follow on the next page. They demonstrated:

1. cranio-cervical mal-alignment
2. cervical hypolordosis
3. mid cervical disc bulges
4. asymmetrical atlanto-dental interspace
5. possible atlanto-axial subluxation

Treatment

The following applications of care were made and/or prescribed:

- A. Adjustment AO (upper cervical subluxation realignment)
- B. Full spine Impulse IQ (lower spinal and pelvic tone)
- C. Cold Laser (facilitation of healing of soft tissue and revascularisation)
- D. Soft neck collar, short term, as needed (stabilisation and management of muscle fatigue)

Co-Management

Such was the nature of this unusual presentation that we regarded a multifaceted approach was required. The primary physician was the chiropractor and the assistance of the following was sought:

1. neurologist to assess MRI findings
2. acupuncture for pain reduction
3. physiotherapy for muscular rehabilitation advice
4. upper cervical (and secondarily full spine) chiropractic underpinning the maintenance of neuromuscular tone and structural alignment, as above.
5. recommended hiatus of play 12 to 18 months

pre APOM



post APOM bi - lateral flexion



pre 2018



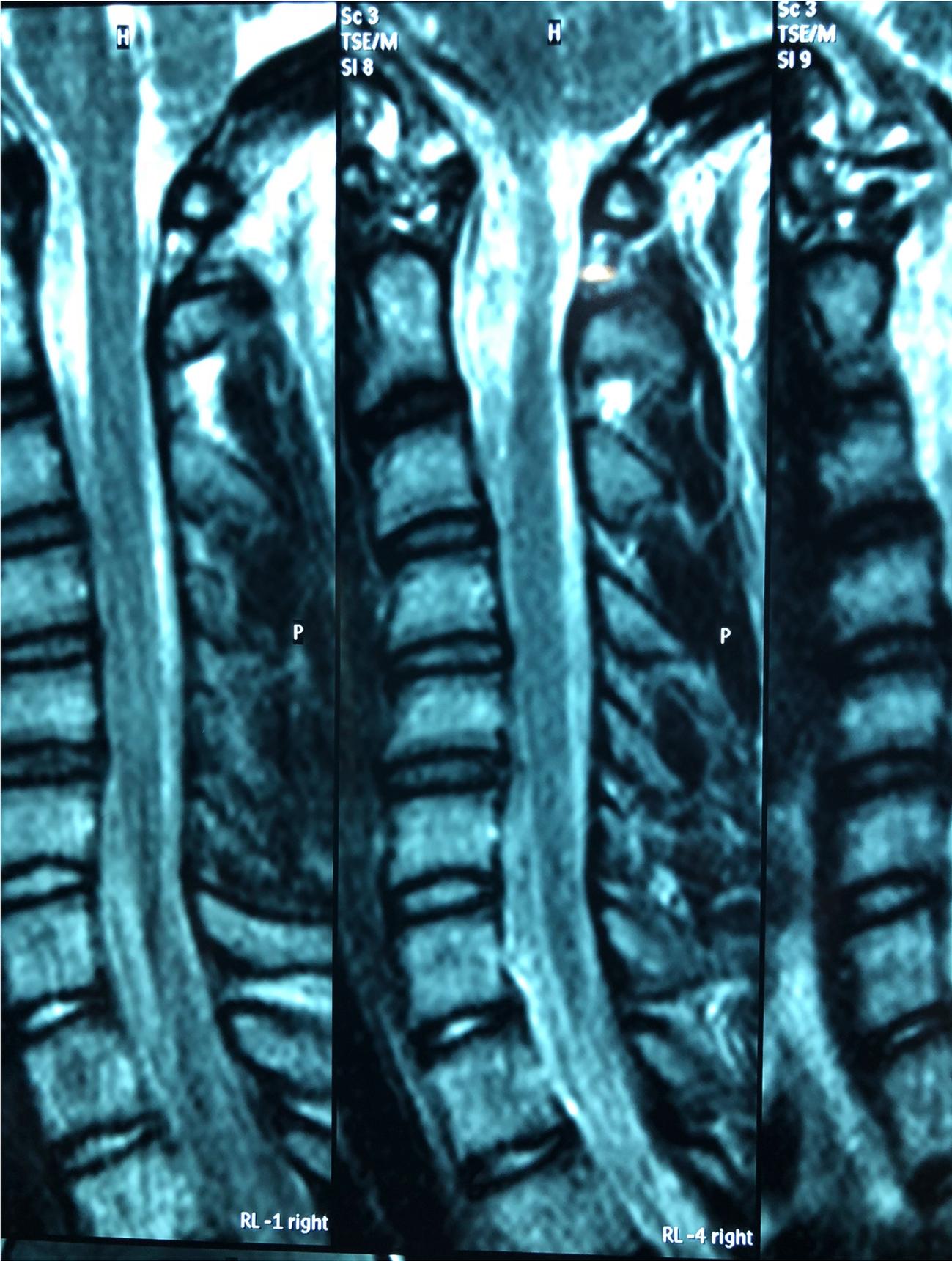
post 2019



Pre Sagittal



MRI revealed multiple level mid-cervical mild disc bulges.



Outcomes

The patient made a good recovery. Pre/post x rays showed alignment returning to normal. Lordosis has remained unchanged. Follow up lordotic study was indicated within 12 months. She continued to play and represent her local and interstate squads after healing and a rest period well into 2020. Cases such as this can be very interesting to manage and there is occasional frustration at the interface of potential injury versus developing excellence in performance.

At the time of publication, the patient had reported to me that she re-injured herself in another tournament. I asked for repeat imaging of the cervical spine and at our consultation discussed that her lordosis was unchanged.

My position was to report to the patient then care for her as indicated on that presentation. My advice was against further competitive play.

There is never certainty that any patient will comply and this case demonstrates that there is a point where the patient must accept responsibility, In the case of this younger patient in consultation with her parents they will make their own decisions.

Our role as conventional chiropractors is to provide the most relevant and informed advice with our expectations of possible outcomes to assist the patient make an informed decision and then to support them in ongoing care.

What we know

Oliver reported (1) that '*many practitioners use exclusively an upper cervical technique and remain successful in treating low back pain patients*' and stated '*There are several theories as to why cervical subluxations are related to low back pain.*' The indexing term 'upper cervical technique' returned 34 articles (01 October 2020) in the *Index to Chiropractic Literature*.

Elster's case report of a 35y female was supported with further 100 cases of 'chronic headache'. (2) In a summary report of 300 patients with Meniere's disease Burcon reported '*Vertigo intensity rated by 300 patients on a scale of 0 to 10, with 10 being the worst imaginable. Prior to treatment mean score was 8.5, six weeks post treatment average was down to 3.0, after one year 2.0, two years 1.4, three years 0.9, four, five and six years 0.8, an improvement of over 90%. Ninety seven percent claimed a dramatic improvement in vertigo. Three percent had side effect of headache.*' (3) Pennington and Miller (4) also reported on '*successful chiropractic management of a patient [65y female] with Meniere's Disease post vestibular nerve section*' and Brown et al. reported multiple sclerosis. (5)

The identification and correction of upper cervical subluxation is also reported in both adolescent females and males. There are associations reported with headache and poor concentration, (6) vision loss, (7) possible conversion disorder, (8) idiopathic scoliosis, (9,10) cervical ependymoma, (11) and post-traumatic epilepsy, headaches, and dizziness. (12)

In this case presented by Ierano the transformation of 'chiropractic subluxation' to 'medical subluxation' management was an impending fine line that was considered but not drawn and surgical options were not required.

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About the chiropractor

Dr Ierano is a 1997 graduate of Palmer Davenport and is a certified instructor in Atlas Orthogonal Technique, via the Sweat Foundation in Atlanta, USA. He has taught upper cervical specific in Australia since 2000. He practices in suburban Sydney with sessions at a CBD clinic. The latter clinic has been negatively impacted by pandemic lockdowns however the suburban clinic has increased patient volume. This report is published with the informed consent of the patient.

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