IN THE DISTRICT COURT
AT WELLINGTON

I TE KŌTI-Ā-ROHE
KI TE WHANGANUI-A-TARA

[2022] NZACC 122 **ACR 58/21**

UNDER	THE ACCIDENT COMPENSATION ACT 2001
IN THE MATTER OF	AN APPEAL UNDER SECTION 149 OF THE ACT
BETWEEN	LISA CRUSE Appellant
AND	ACCIDENT COMPENSATION CORPORATION Respondent

Hearing: 26 May 2022
Heard at: Auckland/Tāmaki Makaurau

Appearances: The appellant in person
Mr L Hawes-Gandar and Ms F Becroft for the respondent

Judgment: 27 June 2022

RESERVED JUDGMENT OF JUDGE C J McGUIRE
[Entitlements s67, s69 and Schedule1, Accident Compensation Act 2001]

---

[1] The appellant has cover for cervical and thoracic sprains as a result of an accident on 29 November 2019.

[2] At issue in this appeal are decisions of the respondent dated 18 June 2020 declining cover and funding for surgery to treat a T7/8 disc injury and dated 22 June 2020, agreeing to pay weekly compensation for 2 weeks following the accident but declining it thereafter on the basis that the appellant's ongoing problems were caused by pre-existing degeneration and not her covered injuries.

[3] The appellant's position is that she had no problems before the accident and has suffered severe pain since. Therefore, she claims weekly compensation and other entitlements from the Corporation.

[4] The Corporation's position is that, on the evidence, the appellant has long-standing degenerative changes throughout her spine, which were likely rendered symptomatic but not caused by the accident.

[5] The appellant has earlier claims with the Corporation relating to back problems, including:

(a) A back sprain relating to the thoracic spine in 2004 from a lifting event;

(b) Lower back problems resulting in surgery on her lumbar spine in 2012;

(c) A back sprain in 2012 which occurred while she was climbing through a window;

(d) A sprain to her neck (cervical spine) in 2013 when she was hit in the face by a netball. An x-ray taken on 5 November 2013 identified scoliosis of the thoracic spine and disc degeneration changes in the cervical and mid-thoracic spine.

(e) A sprain to her neck (cervical spine) in 2016 when she had to stop her car suddenly. She had both a bone scan and MRI of the cervical spine. Degenerative changes were noted throughout the cervical spine and the top of the thoracic spine. The scans did not cover the lower thoracic spine which is at issue in this appeal.

Background

[6] On 29 November 2019, the appellant was driving her car and was stationary at an intersection. She was hit from the rear by another vehicle.

[7] She felt immediate pain in her neck and upper back and drove herself to North Shore Hospital.

[8] A CT scan taken at the hospital did not identify any fracture or traumatic injury. The report recorded:

> Cervical Spine:
>
> There is a minor anterolisthesis of C7 on T1 due to bi-lateral facet joint osteoarthritis. There is reduction of the normal cervical lordosis with otherwise satisfactory vertebral body height and alignment. Degenerative disc disease evident at C5 – C6 and C6-C7.
>
> ...
>
> Evidence of previous in discectomy and surgical fusion at the lumbar sacral junction. There is otherwise satisfactory vertebral body height and alignment of the thoracic and lumbar spine. No acute bony injury detected.

[9] The report concluded with:

> No evidence of traumatic injury detected.

[10] The hospital examination noted the following:

> ...
>
> C-spine: tender C4-5, FROM, normal head control
>
> No clavicle/sternum/chest wall tenderness
>
> Minor abrasion LLQ abdomen, soft, tender upper quadrants, non-peritonitic
>
> Tender upper Tt spine. No L/S spinal tenderness
>
> Stable pelvis

[11] The appellant was discharged that afternoon with advice to see her GP for follow-up or to return to the emergency department if her symptoms worsened.

[12] The hospital lodged a claim for cover for sprains for the cervical and thoracic spine. The Corporation granted cover in their decision dated 2 December 2019.

[13] The appellant sought treatment from Sarah Ashford, physiotherapist, on 3 December 2019.

[14] Under the heading "Current Symptoms", the physiotherapist recorded:

> Injury to neck and thoracic from being rear-ended in MVA – hospital nausea and headaches. Worst when headaches are at their worst. Sometimes gets some slight blurred vision initially on the day it occurred. Not now. Hospital CT

> x-rays scans cleared no fracture or breaks occurred. Lifting her R arm up for CT overhead was very painful.
>
> ... Usually has good mobility and moves around a lot and can lift. Neurofen-2 daily not wanting to take more than that as doesn't like pain relief also may need morph. Extremely stressed today but claims no other stressful events that are new from previous.

[15] The assessment report shows a body diagram of the appellant's back with the pain area covering most of her thoracic spine up to the bottom of her cervical spine.

[16] The physiotherapist also noted aggravating factors as lifting her right shoulder and her right arm above her head, and also lifting. The physiotherapist's differential diagnosis was neck sprain and thoracic sprain.

[17] The physiotherapist noted ongoing discomfort

> ...in the appellant's neck/upper traps R/R thoracic from MVA. Very anxious and stressed at appointment, high stress and link to neck sprain with her MVA causing regular tension headaches as well as pain in the upper traps and thoracic possibly from a braced action when taking impact from behind.

[18] The appellant had further appointments with her physiotherapist on 9, 13, 16 and 19 December 2019 and six further appointments in January and February 2020.

[19] The physiotherapy notes from 14 January 2020 onwards have the differential diagnosis of "sprain thoracic spine" only.

[20] The appointment of 25 February 2020 noted the following:

> Has been getting worse. Now also getting referral to L forearm and hand and palm intermittently.

[21] The physiotherapist noted under the heading "Objective":

> TOP (tender on palpation) throughout upper limb, focal around R ribs extending from T6 – T4 area.

[22] The physiotherapist noted that a specialist appointment had been arranged.

[23] The appellant first saw her GP on 17 March 2020. The notes record her condition had not improved:

> Injury resulted in her being unable to do physical work in her own business which is a bathroom makeover.
>
> Complaining of mid thoracic pain radiating into both scapula.
>
> ...
>
> **Impression**
>
> Persistent thoracic pain.

[24] The appellant's GP referred her to orthopaedic and spinal surgeon, Mr Insull. Her GP also advised her to get in touch with the Corporation in relation to weekly compensation as at that stage she was receiving WINZ support.

[25] In his report of 7 April 2020, Mr Insull said:

> She has severe, near intolerable thoracic back pain which has been persistent both at rest and with activity since a motor vehicle accident on 29 November, where her stationary vehicle was struck from behind.
>
> ... I feel that thoracic back pain of this severity is a red flag and I feel urgent MRI scan and CT spect to completely understand the structural nature of her condition is indicated.

[26] On 3 April 2020, the appellant's GP, Dr Charslund, submitted a medical certificate, certifying that she was fit to work only 2 hours per day from the date of the accident.

[27] An MRI was performed on 9 April 2020. In his report, radiologist, Dr Clark, stated:

> **Findings:**
>
> A mild lower thoracic scoliosis is identified convex to the right at T8 level. All the vertebral body heights are maintained.
>
> T6/7 level: there is moderate disc space narrowing, loss of disc hydration and small annular disc bulge. No nerve root compromise.
>
> T7/8 level: there is moderate to marked loss of disc height, type II/III modic end plate changes anteriorly, anterior vertebral body osteophytes and small posterocentral disc bulge. No nerve root compromise.
>
> T8/9 level: there is moderate to marked loss of disc height anteriorly and anterior vertebral body osteophytes. No focal disc abnormality. No nerve root compromise.

T10/22 level: there is a small posterocentral disc bulge without nerve root compromise.

At the remaining thoracic levels the disc spaces are maintained with normal disc hydration identified. No further significant thoracic disc abnormality.

...

Impression:

No significant thoracic spine abnormality is identified to explain the patient's symptoms.

[28] A spect CT was taken on 17 April 2020. The radiologist reported noted:

Intense discogenic uptake at the T7/8 level and mild uptake at other levels.

[29] The radiologist concluded that the uptake at T7/8 level corelated to the recent MRI and that there were "no occult injuries were demonstrated relating to the recent trauma".

[30] Mr Insull commented on 1 May 2020 following the MRI and spect CT scans:

These are strongly concordant with her posterior mid interscapular level pain, which arose from an intimate temporal relationship with her motor vehicle accident. This has certainly never been an issue for her prior to this accident and it seems reasonably likely that the changes identified on both scans are post traumatic in origin.

...

In the meantime Lisa would like us to submit an ARTP for consideration of T7/8 arthrodesis after our discussion today, which I think is a very reasonable option for her.

[31] Mr Insull lodged a medical certificate certifying the appellant as fully unfit for work from 1 May 2020 due to a "T7/8 disc injury". He also lodged a request for funding to perform spinal fusion surgery at the T7/8 level. In relation to the causal link between the treatment and the accident, Mr Insull repeated his comments from his report indicating there was a temporal relationship between the appellant's symptoms and the accident.

[32] The request for surgery was reviewed by the Corporation's principle Clinical Advisor, Orthopaedic Surgery, Mr Rao. In his report of 17 June 2020, Mr Rao commented that the x-ray from 2013 showed evidence of pre-existing disc

abnormality and spondylosis in the spine and that the post-accident MRI confirmed these changes. Mr Rao concluded that while the appellant had suffered an accident and was suffering from neck and shoulder pain, there was insufficient evidence that significant trauma had occurred "by way of disc protrusion and the like" at the T7/8 disc level.

[33] He said:

> At this stage there is insufficient evidence that the single event trauma is responsible for the cause of the client's ongoing symptoms.

[34] Based on Mr Rao's advice, the Corporation, in a decision dated 18 June 2020, declined the request for surgery and declined to provide cover for T7/8 discopathy.

[35] On 22 June 2020, the Corporation obtained advice from Dr Callaghan, ACC's principal clinical advisor, in relation to whether the appellant was likely to have been incapacitated by her covered injuries.

[36] Dr Callaghan advised that the accident was likely to have caused a short-term soft tissue injury/sprain. She said that this could have affected the appellant's ability to work for up to two weeks following the accident. Dr Callaghan advised that any incapacity beyond that point was likely due to the T7/8 discopathy, as identified by Mr Insull. Based on the radiological reporting and opinion from Dr Rao, Dr Callaghan agreed that the T7/8 discopathy was not caused by the accident.

[37] In accordance with Dr Callaghan's advice, the Corporation issued a decision on 22 June 2020 accepting back-dated incapacity for a period of 2 weeks from the date of the accident but declining it thereafter.

[38] Dr Callaghan provided further comment on 26 June 2020 after viewing the physiotherapist's notes. In those notes she said:

> I can see no reason to amend my previous opinion. The physiotherapy notes show the expected resolution of soft tissue type injuries in the time frame I indicated previously.

[39] The appellant applied for review of the Corporation's decision and a conciliation meeting was held where the parties agreed to obtain a further opinion from Mr Insull in relation to what he considered to be the nature of the pathology at T7/8 and how he suggested this was linked to the accident.

[40] In a report dated 26 October 2020, Mr Insull responded to the question "Can you please clarify what specific injury to the T7/8 disc is?":

> Compressive forces across the anterior column of the spine, with end-plate reactive changes identified at T7/8 on MRI and spect CT. This is concordant with the patient's specific posterior interscapular pain location, which she reports was entirely new after her accident and never previously present.
>
> I do not disagree that some pre-existing spondylosis was likely present prior to the accident event. However, this was seemingly not symptomatic and was normal for the patient's stage of life.

[41] Mr Insull was asked to comment on the mechanism of injury and whether in his view it was likely that the mechanism caused the identified injury to the T7/8 disc. Mr Insull said:

> The accident mechanism is very reasonable for causation of a sudden violent anterior column compressive force. Reactive end-plate changes identified on spect CT and MRI at T7/8 concordant with the effects of a forceful anterior column compressive injury.
>
> I acknowledge the presence of some prior age-appropriate spondylosis. However, the patient notes no prior symptoms relating to the T7/8 anatomical level specifically and her thoracic end-plate reactive changes are essentially single level, rather that defuse.

[42] Mr Insull went on to say that the particular changes identified on the scans were:

> Reactive end-plate T2 signal on MRI and tracer uptake on spect CT at the T7/8 level specifically.

[43] When asked what it is about the changes that led him to conclude they were likely to be post-traumatic, he said:

> I expressed that these changes were "reasonably likely" to be post-traumatic as:
>
> (a) The patient reports no prior symptoms at this location.

(b) No prior MRI or spect CT exists, as far as I am aware, to show that these specific features were established prior to her accident. X-ray cannot demonstrate such imaging features.

[44] Mr Insull's report was reviewed by Mr Rao on 30 December 2020. In summary, Mr Rao explained:

(a) If the accident had caused any significant T7/8 injury, he would not have expected Ms Cruse to have been able to take herself to hospital and to present with normal neurological symptoms and no evidence of structural damage in the CT scan.

(b) The end-plate changes are non-specific changes that represent irritation and inflammation of the disc and are generally caused by wear and tear:

> "The end-plate reactive changes are simply as a consequence of the degenerative changes at this level and represent the effects of wear and tear. This can cause inflammation and irritation and can be therefore viewed on the imaging, both the MRI and spect scan as noted in the report."

(c) While a significant motor vehicle accident could cause compressive forces across the anterior column of the spine as suggested by Mr Insull, Mr Rao did not think this likely given the presentation to hospital and because the air bags had deployed giving Ms Cruse a degree of protection.

[45] Mr Rao also said:

> Mr Insull seems to rely fairly heavily on the imaging findings as opposed to the initial clinical presentation which clearly supports that the client did not sustain a significant or serious T7/8 intervertebral injury. I note that Mr Insull believes that the client reported no symptoms prior to the injury event. However, I also note that on review of the clinical files, the client had very non-specific pain as oppose to a specific area of pain over the T7/8 at initial presentation.

[46] Following the review decision, further evidence was obtained from Mr Peter Welsh, Orthopaedic Surgeon, who reviewed the file. In his report, Mr Welsh refers to the x-ray study of 5 November 2013 showing a degenerative process long antecedent to the accident event of November 2019. He said that the reactive end-place changes were not a reflection of traumatic injury damage. He said the end-plate changes reflected a "long standing degenerative process not a response to trauma" and that the accident:

> ... had absolutely no responsibility for the observed radiological findings of pathology in the spine. There was long standing established degenerative process in the thoracic spine as confirmed on x-ray study in 2013.

[47] Mr Welsh also said:

> Reactive end-plate change reflect long standing degenerative process not a response to trauma. The presence of such does not indicate that such focus is necessarily the cause of Ms Cruse's symptoms for there is no imaging that can specifically define "pain".

[48] He also said:

> The accident was not responsible for end-plate changes. It is seen from the history presented that Ms Cruse encountered in a motor vehicle accident on 29 November sprain injury to her neck and back might be responsible for symptom limitation at that time and for short duration thereafter. Such sprain injury resolved the pathology imaged is not accident derived.

[49] Mr Insull reported again on 17 August 2021. Amongst other things, he said:

> I agree it is a situation where one cannot be definitive in stating that the accident event has directly caused the T7/8 structural pathology to have arisen, and this pathology may have been instead aggravated/provoked by the accident and rendered symptomatic since. However, post-traumatic degeneration is theoretically possible and should be considered. The interval between Lisa's accident event and April 2020 thoracic MRI scan is long enough for purely post-traumatic degenerative changes to have arisen at this level.
>
> ...
>
> There is an intimate temporal relationship between the events and the onset of her symptoms, which are clinically concordant with the T7/8 level, so sensitisation of the local nociceptive receptors and the amplification following trauma does seem to be a direct consequence of that accident event. In my opinion, as Lisa was entirely asymptomatic prior to the accident event, this would represent a form of post-traumatic regional pain syndrome in other terms.

[50] Mr Insull concludes:

> In this instance with symptoms and imaging findings reasonably attributable to a T7/8 pathology, confirmation as to its significance with diagnostic injection at the T7/8 level is very useful, and in my opinion, if Lisa's pain improves, even for 1-2 hours following that intervention, that would tend to suggest that her dominant pain generator arises at the T7/8 level. I agree that does not have a bearing on theories regarding causation of that pathology, and I would leave that in the hands of other reviewers to make further complex judgments.

The appellant's submissions

[51] In written submissions, the appellant describes the accident:

> On 29 November 2019 at 10 am I was in my vehicle stopped at a red traffic light, with my foot on the brake, waiting to turn left on to the Northern

Motorway, from Wellington Street, Freeman's Bay. A 2008 Mercedes Benz C63 (6,200 cc) travelling at approximately 50 km per hour, crashed into the back of my 2013 Sangyong Korando (1998 cc), shunting my car forward, and with enough force to set my head rest air bags off and cause significant damage to the rear of my car.

...

The first thing I did immediately after the accident was check my neck and to great relief found it was okay. I believe that the head rest air bag "saved" my neck from whiplash but instead my mid to upper spine and mid/lower shoulder line took the brunt of the impact because it felt like I had been kicked in the back by a horse. The T7/8 is the point where the curve of my back rests naturally against the seat. I was able to get out of the car, albeit slowly and with great care, survey the damage and exchange details with the driver, who accepted responsibility immediately (he had seen the green light for going straight ahead, but not the red light for turning left). I was unable to reset my head rest air bag but because I was blocking the entrance to the motorway, I was concerned about holding up traffic and my only option was to get on the motorway and continue to travel north. I was functioning on adrenaline and in problem solving mode.

As I was driving across the Auckland Harbour Bridge and as shock set in, I started to feel nauseous and woozy so drove to North Shore Hospital and presented myself to the emergency department.

...

At North Shore Hospital I presented with significant pain in my mid to upper back and shoulder regions. Also with tenderness in my cervical C4/5; had a headache; had tingling with electric like shocks in my lower left leg; had minor abrasion across my lower abdomen; had significant pain when lifting my arm above my head causing my back to spasm and sending shooting pain to my thoracic. I continually stressed to the medical staff that the main pain was felt in my left upper back and shoulders.

...

The CT scan reported:

- There is minor anterolisthesis of C7 and T1 due to bilateral facet joint osteoarthritis. There is a reduction of the normal lordosis with otherwise satisfactory vertebral body height and alignment. Degenerative disc disease evident at C5-C6 and C6-C7. No acute fracture detected.

- There is otherwise satisfactory vertebral body height and alignment of the thoracic and lumbar spine. No acute bony injury detected.

[52] The appellant draws the Courts attention to the fact that no degenerative disc disease was identified in her thoracic spine below T1 by the CT scan taken on the day of the accident.

[53] She lists an overview of the pain she felt from the time of the accident and which developed over time:

(a) My mid to upper back (thoracic spine) and where my ribs join my spine, is the most painful.

(b) Initially my right shoulder presented as painful, but this later eased.

(c) My mid back feels continually "locked".

(d) Various ribs, predominantly on my left side, are constantly in pain – sometimes throbbing and sometimes sharp. These ribs were later isolated on scans. The ribs are attached to the chest wall which will explain my difficulty with regular breathing.

(e) Every breath is like a wheeze of pain that shoots up my throat.

(f) As the rib and back pain progressed, my breathing became increasingly shallow and I became breathless. Prior to the accident I had excellent lung capacity.

(g) It feels like pointed prongs are sticking in my back and go through my ribcage into my lungs.

(h) At times it feels like an elephant sitting on my chest.

(i) My left shoulder sends shooting pain whenever I twist to the left. Constant pain down a line on the inside of my left arm.

(j) Shooting pain that goes into my mid back (T7/8) when I raise my left arm and also into my left shoulder.

(k) My mid back pain is different depending on my position or twisting movement.

(l) Walking, sitting, standing, lying down, or driving for any length of time is painful.

(m) Performing normal tasks like pushing myself off from the toilet or chair is gripping with pain.

(n) Sleeping on my back has been impossible at times due to the pain and pressure on my thoracic and ribs.

[54] The appellant is critical of Dr Callaghan's comment that the physio notes show the expected resolution of soft tissue type injuries in the time frame indicated previously.

[55] The appellant is unable to find any comment in the physiotherapy notes from which Dr Callaghan could arrive at that conclusion.

[56] The appellant notes that she did not lodge a medical certificate with ACC immediately:

> Because I assumed I would get better with physiotherapy and rest, but instead I deteriorated rapidly after only a couple of weeks post-accident. I found this unsettling as I struggled to overcome the chronic pain – pain I was never able to get on top of since I had the accident and that did not exist prior.

[57] The appellant submits that Mr Rao has not been able to provide medical evidence to show that there was a pre-existing condition of the T7/8 joint prior to the motor vehicle accident or 29 November 2019.

[58] She refers to Mr Welsh's report of 30 June 2021 saying that his review provided no new medical evidence for a pre-existing disc degeneration at T7/8, only referencing the x-ray study that showed the "degenerative process". She says that this is incorrect as the changes at the T7/8 level first appeared in the MRI and CT scans four month post-accident.

[59] She says:

> Prior to the time of the accident I was a fit and healthy 55 year old self-employed and hard working mother of a 14 years old son. I had separated amicably 18 months previously but was the sole carer and financial provider for our son. While separating is not without its stresses, I had always worked long hours (50 – 70+) and juggled this with being a hands on parent. I would regularly work until 2 – 3 am in the morning to deliver a premium business service; pay the mortgage and bills; and most importantly be present for my son's after school activities. As a self-employed person you don't get sick because you don't get paid for time off. I was rarely sick and had a strong constitution and work ethic.

[60] She submits that the temporal onset of symptoms is significant evidence and cannot be lightly discounted. While she acknowledges that a temporal association is insufficient to establish causation there are judgments such as *Newstead,*[1] that highlight to importance of temporal connection on issues of causation. She also notes that the case of *Gallagher;*[2] where the Court stated that a temporal connection can elevate a matter from a possibility to a probability.

---

1 *Accident Compensation Corporation v Newstead* [2004] NZACC 310 at [26] – [28].
2 *Gallagher v Accident Compensation Corporation* [2010] NZACC 116 at [35].

[61] She also refers to *Mehrtens,*[3] where the Court identified the factors that may be relevant to determining causation.

[62] She also says that in the case of *Gilmour,*[4] the Court noted that the advice of the treating specialist "is a factor that the Court should take into account when contrasting with opinion from experts who have not seen the patient".

[63] She acknowledges that degenerative disc disease was pre-existing in her cervical spine and at C7 on T1, likely caused from a whiplash injury in 2013 for which, at that time, treatment was sought. She submits that reference to her cervical spine and its degeneration is irrelevant to this claim.

[64] She says that there is no medical evidence that shows there was pre-existing damage to her thoracic spine below T1 and there therefore it can be bench-marked that the accident caused the injury.

[65] She submits that the medical experts who have an intimate knowledge of her injury have all based their review and reports on physical and medical evidence and support that the discopathy at T7/8 is post-traumatic, and on the balance of probability is primarily caused by the accident.

[66] In oral submissions to the Court, the appellant detailed her extremely active life, her fitness and her extremely strong work ethic. She told the Court that a month before this car accident she cycled around Rarotonga. She said the car accident "rocked me". She described the effect of the accident on her as "like a horse kicking out". She said there was no foundation for Dr Callaghan to say that she was healed. She said, "I continued to get worse".

[67] She also told the Court of the substantial loss of income that had resulted from the accident.

---

3 *Mehrtens v Accident Compensation Corporation* [2012] NZACC 250 at [48].
4 *Gilmour v Accident Compensation Corporation* [2015] NZACC 296 at [57].

The respondent's submissions

[68] Mr Hawes-Gandar told the Court the respondent completely accepted that the appellant had been involved in a serious accident which had a serious impact on her.

[69] Accepting the appellant's T7/8 pathology, the issue is was it caused by the accident? The submission on behalf of ACC is that it pre-dated the accident because, firstly, the nature of the changes were degenerative; secondly, there were multiple degenerative places; and thirdly, the evidence from before the accident was that degeneration was occurring, with the x-ray findings of 5 November 2013, recording:

> disc degenerative changes are noted in the lower cervical and mid thoracic regions and there is osteoarthritic narrowing of a few intervertebral foramina bilaterally in the lower cervical spine.

[70] Mr Hawes-Gandar next refers to the MRI scan of 2 December 2016 recording degeneration of the cervical spine. However, he does acknowledge that this scan did not include the mid thoracic spine.

[71] He next refers to the MRI scan of 9 April 2020 which shows similar changes at multiple levels.

[72] He describes Mr Insull's report of 1 May 2020 in which he says it seems reasonably likely that the changes identified in the 9 April 2020 scan are post-traumatic in origin as being the "high water mark" in favour of the appellant.

[73] The Corporation then obtained a report from its principal clinical advisor – orthopaedic surgery, Mr Rao, who is critical of Mr Insull, saying he seems to rely fairly heavily on the imaging findings as opposed to the initial clinical presentation which clearly supports that the client did not sustain a serious T7/8 intervertebral injury.

[74] He notes that Mr Welsh, in his review of the medical information of 30 July 2021, concludes that the accident had not been responsible for the changes in the appellant's spine. His conclusion was that the appellant's pre-existing condition was rendered symptomatic by the accident.

[75] Mr Welsh notes that in his report of 17 August 2021 Mr Insull agrees that one cannot be definitive in stating that the accident event had directly caused the T7/8 structural pathology to have arisen.

[76] Mr Welsh notes that Mr Insull then says:

> However post-traumatic degeneration is theoretically possible and should be considered. The interval between Lisa's accident event and April 2020 thoracic MRI scan is long enough for purely post-traumatic degenerative changes to have arisen at this level.

[77] Mr Hawes-Gandar acknowledges that in the same report that Mr Insull is of the opinion that:

> As Lisa was entirely asymptomatic prior to that accident event, this would represent a form of post-traumatic regional pain syndrome, in other terms.

[78] Mr Hawes-Gandar acknowledges that this opinion could be the basis of a mental injury caused by a physical injury.

[79] Mr Hawes-Gandar submits that overall, the overwhelming weight of evidence is that while the accident may have rendered the end-plate changes symptomatic, it did not cause them.

Decision

[80] There is little doubt that the appellant was the innocent victim of a substantial rear end vehicle accident as described earlier on 29 November 2019. Her vehicle was hit from the rear when she was stationary at a light by a much heavier vehicle travelling a speed.

[81] The appellant managed to drive herself to the hospital where she was admitted. She was treated over the next 5 hours, given a CT scan that detected no traumatic injury and she was discharged the same day.

[82] The appellant followed up with several physiotherapy sessions, the last of which was on 25 February 2020.

[83] It is plain that throughout the period of her physiotherapy sessions which commenced on 3 December 2019, there was a focus on her thoracic spine and this on each occasion being recorded as all or part of the physiotherapist's deferential diagnosis.

[84] By 25 February 2020, when the last physiotherapy session occurred, it is recorded that the appellant had been getting worse. The clinical notes records that on each occasion she was TOP (tender on palpation) throughout her upper back. The body diagrams attached to the assessment notes of each consultation all show the tenderness reaching down the right hand of her spinal column from almost her neck level to her lower thoracic level.

[85] The thoracic symptoms therefore were present from the outset. However, it seems from the same records that the treatment issue labelled "neck sprain" resolved itself in the course of these treatments.

[86] Regrettably, the CT scan performed when she was admitted to hospital on 29 November 2019 covered the area from the base of her skull to the T1/2 vertebrae which are the top of the thoracic spine. Imaging of the thoracic spine did not occur until 10 April 2020, some 4½ months later.

[87] The vertebral level that is in focus in this case is the T7/8 level. That was where her substantial pain appeared to derive from.

[88] The 9 April 2020 MRI scan revealed:

> T7/8 level: there is moderate to marked loss of disc height, type II/III modic end plate changes anteriorly, anterior vertebral body osteophytes and small posterocentral disc bulge. No nerve root compromise.

[89] As already indicated, Mr Insull is of the view that these changes could have arisen since the accident and as a result of the accident.

[90] The Corporation's view essentially is that the changes were there throughout and were rendered symptomatic by the accident.

[91] The appellant presents as a very fit active and hard working individual.

[92] The first of the imaging reports available to the Court in respect of her is an x-ray that dates from 5 November 2013. The findings on that occasion included:

> Minor sinusoidal scoliosis of the thoracic spine. Minimal retrolisthesis of C5/C6 secondary to osteoarthritis of facet joints. Alignment otherwise normal. No fracture nor focal bony lesion. Vertebral bodies in posterior elements appear intact. Disc degenerative changes are noted in the lowest cervical and mid thoracic regions and these are osteoarthritic narrowing of a few intervertebral foramina bilaterally in the lower cervical spine.

[93] The next imaging is an MRI scan of 30 November 2016. For comparative purposes, this report, so far as it relates to the C7/T1 level and the T1/2 level is of some relevance. The report reads:

> C7/T1 level: 2mm anterolisthesis on C7 on T1 vertebrae is identified with subsequent uncovering of a small annular disc bulge which indents the anterior aspect of the thecal sac. No nerve root compromise or spinal canal stenosis. The disc space is maintained with normal disc hydration identified.
>
> T1/2 level: A small posterocentral disc bulge is identified without nerve root compromise or spinal canal stenosis. The disc space is maintained with normal disc hydration identified.
>
> T2/3 level: No focal disc abnormality. The disc space is maintained. Normal disc hydration. No spinal canal stenosis.
>
> The remainder of the upper thoracic and cervical spinal cord and craniocervical junction is normal. No prevertebral soft tissue abnormality.

[94] The report also in effect repeats what was said in the 2013 report regarding C5/C6. The 2019 report stating:

> C5/C6 level: There is a 2mm retrolisthesis of C5/C6 vertebrae and posterior vertebral body spurs. A moderate broad based disc protrusion is identified which compresses the anterior aspect of the thecal sac and extends into the intervertebral foramina bilaterally to cause moderate narrowing of the right intervertebral foramina and compression of the exiting right C6 nerve root, and marked left foramina narrowing and compression of the exiting left C6 nerve root. A combination of the disc protrusion and mild bilateral facet joint hypotrophy, causes mild spinal canal stenosis at this level. No spinal cord oedema is identified. There is marked loss of disc height and loss of disc hydration.

[95] Next there is the CT scan taken on 29 November 2019, the date of the accident. Under the heading "Cervical Spine" is this:

> There is a minor anterolisthesis of C7 on T1 due to bi-lateral facet joint osteoarthritis. There is reduction of the normal cervical lordosis with otherwise satisfactory vertebral body height and alignment. Degenerative disc disease evident at C5 – C6 and C6-C7.

[96] Of relevance to the issues before the Court is the comparison of the findings of the two scans done three years apart. The statement in the 2019 report that degenerative disc disease was evident at C5/C6 and C6/C7 is essentially in keeping with the findings on these two levels that were made 3 years previously.

[97] Likewise, the findings in the 2019 report that there is a minor anterolisthesis of C7 on T1 due to bi-lateral facet joint osteoarthritis, appears to be in keeping with the findings at the level made 3 years earlier.

[98] Next the MRI scan of 9 April 2020 is compared with the earlier scans. The 9 April 2020 report says this regarding the C7/T1 level:

> 2mm anterolisthesis of C7 on T1 vertebrae is identified. There is uncovering of small annular disc bulge without nerve root compromise or spinal canal stenosis. The disc space is maintained. Normal disc hydration.

[99] This description of the C7/T1 level is virtually identical with the MRI report of 20 November 2016, some 3 years and 4 months earlier.

[100] Likewise, for comparative purposes, the report on the C6/7 level appears to be largely the same as it was in the 2016 report.

[101] The 2020 report also says:

> At the remaining thoracic levels, the disc spaces are maintained with normal disc hydration identified. No further significant thoracic disc abnormality.

[102] I conclude from these comparisons that so far as we are able to compare spinal discs over the x-ray, CT and MRI scans carried out commencing in 2013, there has been little change in respect of "nearby" vertebrae to the T7/T8 level in respect of which comparisons have been able to be made.

[103] The issue then is: is it more probably than not that the problem at T7/T8 was caused by the accident or was it as the Corporation contends, natural degeneration rendered symptomatic by the accident?

[104] Based on this admittedly sparse comparison above, the odds fall in favour of the accident having a causal part to play.

[105] Almost immediately post-accident, according to the physiotherapy notes, the appellant was challenged with major pain and disability in her thoracic spine.

[106] Mr Insull is of the view that the changes that were shown on the MRI scan of 9 April 2020 could have been post-traumatic.

[107] It must be accepted that the accident did not immediately cause traumatic pathology, even though the "damage" was quickly identified by the physiotherapist.

[108] It does not appear to be challenged that the pain the appellant experiences is from the T7/T8 area.

[109] The Corporation's position in relation to the appellant's claim has some support from orthopaedic surgeon, Mr Welsh, who reviewed the files and reported on 30 July 2021.

[110] In the course of his report, Mr Welsh said:

> The vertebral body end-plates are mechanically discrete structures that form the interface between the vertebral bodies and the adjacent intervertebral discs constituted peripherally by an epiphyseal bone ring and centrally by a cartilage layer.
>
> Modic identified two types of signal intensity change relative to normal vertebral bone marrow. Both types are seen in conjunction with degenerative changes in the adjacent intervertebral disc.
>
> ...
>
> In reality, the cause of these signal intensity changes is not entirely clear. It is hypothesised they reflect a spectrum of marrow changes related to degenerative disc disease ...
>
> *They are not a reflection of traumatic injury damage.*

[111] Mr Welsh went on to say that he did not agree with Mr Insull's diagnosis of reactive end-plate change at T7/8 as the likely cause of the appellant's symptoms and the need for surgery. He said:

> End-plate change reflects long standing degenerative process not a response to trauma.
>
> The presence of such does not indicate that such focus is necessarily the cause of Ms Cruse's symptoms for there is no imaging that can specifically define "pain".

[112] In answer to the question "Do you think that the accident caused any other injury, apart from the end-plate changes?", Mr Welsh said:

> The accident is not responsible for end-plate changes. It is seen from the history presented that Ms Cruse encountered in a motor vehicle accident on 29 November 2019 sprain injury to her neck and back might be responsible for symptom limitation at this time and for a short duration thereafter. Such sprain injury resolved. The pathology imaged is not accident derived.

[113] When Mr Welsh says that "such sprain injury resolved" I infer that this conclusion is at least in part derived from the fact that the appellant had commenced physiotherapy on 3 December 2019 with differential diagnosis of neck sprain and thoracic pain and on 14 January 2020, the diagnosis of neck sprain is no longer present, only sprain thoracic spine.

[114] At that same physiotherapy session, and in spite of there being no further reference to a neck sprain, the physiotherapist records that the response to last treatment was "no change".

[115] Indeed, at the next physiotherapy session on 23 January 2020 it is recorded that "the pain is getting worse" and in her physiotherapy session on 18 February 2020 it is recorded that the appellant "is getting progressively sorer". In her final physiotherapy session on 25 February 2020 the report states the appellant "has been getting worse".

[116] Whilst there can be no question that both Mr Insull and Mr Welsh are experts in their fields, I find that each has stopped short of a firm diagnosis of the reasons for the appellant's pain at T7/8.

[117] Mr Insull says in his report of 21 August 2021 that post-traumatic degeneration is theoretically possible and should be considered. The interval between Lisa's accident event and the April 2020 thoracic MRI scan is long enough for purely post-traumatic degenerative changes to have arisen at this level.

[118] Mr Welsh on the other hand says that "the pathology imaged is not accident derived".

[119] On this point, Mr Insull disagrees, saying:

> In this instance with symptoms and imaging findings reasonably attributable to a T7/8 pathology, confirmation is to its significance with diagnostic injection at the T7/8 level is very useful …

[120] It appears that such diagnostic injection has not been given, or at least not reported on.

[121] Finally, Mr Insull's says:

> There is an intimate temporal relationship between that event (the accident) and the onset of her symptoms, which are clinically concordant with the T7/8 level, so sensitisation of the local nociceptive receptors and the amplification following trauma does seem to be a direct consequence of that accident event. In my opinion, as Lisa was entirely asymptomatic prior to the accident event, this would represent a form of post-traumatic regional pain syndrome in other terms.

[122] This appears classically a case where no expert can conclusively rule in or rule out the accident being the cause of the appellant's presentation and need for surgery.

[123] I conclude that this case calls for the application of the generous and unniggardly approach referred to in *Harrild.*[5]

[124] I acknowledge that as said in *Harrild*:

> [67] A Court may only draw a valid inference based on facts supported by the evidence and not on the basis of supposition or conjecture.

---

5 *Harrild v Director of Proceedings* [2003] 3 NZLR 289 at [19].

[125] In this case, the pain to the appellant's thoracic spine and in particular at the T7/8 level started with her accident. It continued. It got worse. That together with relative stability of symptoms elsewhere in her back deriving from the x-rays and scans dated from 2013, plus the fact that adjacent parts of her thoracic spine appear to be in reasonable condition, to me it tips the balance in the appellant's favour and I therefore conclude, on the balance of probabilities, that the accident caused injury at the T7/8 level which is now requiring surgery.

[126] Although submissions before the Court were focused on causation, the second decision of ACC appealed against is that of 22 June 2020 allowing for weekly compensation for only 2 weeks following the accident. That appeal is also allowed and weekly compensation is to be reassessed for the period following the two week after the accident.

[127] Should there be any issue relating to costs the parties have leave to file memoranda in respect thereof.

Judge C J McGuire
District Court Judge

Solicitors: Medico Law, Auckland for the respondent.