



## Background

[2] On 19 September 2003, Ms Boulton, then aged 28 years old, was admitted to Timaru Hospital after suffering from frontal headaches and neck pain for two weeks. Ms Boulton was identified as having a clinical history of hypertension. The attending physician recorded the results of the renal ultrasound as normal.

[3] On 20 October 2003, Dr Burton, the consultant physician, reported that Ms Boulton presented with severely high blood pressure. He noted that investigations for secondary causes of Ms Boulton's raised blood pressure had thus far returned normal results. Dr Burton commented that, if the results of her renal CT scan were negative, he would diagnose Ms Boulton with essential hypertension (or primary hypertension, which, by definition, has no identifiable cause).

[4] On 6 November 2003, Dr Brew, a radiologist, reviewed Ms Boulton's renal CT scan and observed that it appeared normal, there being no evidence of scarring, other pathology or other abnormality in the renal arteries.

[5] On 17 November 2003, Dr Burton ruled out secondary cause hypertension based on the negative results of the special investigations and the normal CT renal angiogram results, diagnosing Ms Boulton with essential hypertension.

[6] Between 2005 and 2016, Ms Boulton regularly saw Dr Hills, a consulting physician, at Timaru Hospital. The consultations concerned, *inter alia*, management and treatment of her hypertension. The medical evidence records that, during this period, Ms Boulton's blood pressure continued to increase. She also continued to experience a range of symptoms including headaches and paraesthesia.

[7] On 22 February 2016, Ms Boulton was admitted to Timaru Hospital, suffering from chest pain, numbness in her extremities and severely high blood pressure.

[8] On 19 May 2016, Ms Boulton underwent a CT scan. Based on the results of the CT scan, Dr Hills identified that Ms Boulton had an atrophic right kidney and right renal artery fibromuscular dysplasia (FMD).

[9] On 15 June 2016, Dr McGregor, a nephrologist, identified retrospectively that the FMD had been present in Ms Boulton's CT scan from 2003 and that there had been a failure to diagnose FMD. In this report, Dr McGregor also recommended nephrectomy of the affected kidney.

[10] Subsequently, four providers were asked to review the CT scan reported in 2003 to see whether on a blind peer review basis they would identify the FMD. None of the four identified FMD on the scan.

[11] However, the Corporation subsequently received advice that an additional diagnostic test could have been, and should have been, undertaken and, had it been undertaken, it was more likely than not that Ms Boulton's FMD would have been detected. Had it been detected, then atrophy of Ms Boulton's right kidney (and right renal artery) may not have occurred.

[12] On 8 September 2016, Dr Allawati, a nephrologist, diagnosed secondary cause hypertension caused by Ms Boulton's FMD. His report noted that failure to treat the FMD in a timely manner had caused Ms Boulton's hypertension to become treatment-resistant and caused the severe global atrophy of her right kidney.

[13] In a decision dated 13 February 2017, the Corporation granted cover for atrophy of the right kidney requiring nephrectomy.

[14] The Corporation did not accept that the diagnosis of treatment resistant hypertension made by Dr Allawati was accurate. The medical advice it received was that Ms Boulton's hypertension was not treatment-resistant, but rather persistent. This advice was received in the reports prepared by medical advisor Dr Garry Brown (dated 9 February 2021) and renal specialist Dr Hay (dated 9 November 2021).

[15] In a decision dated 16 February 2021, the Corporation declined cover for progression of right renal artery stenosis which was upheld at review.

### **Relevant law**

[16] Section 162(1) of the Accident Compensation Act 2001 (the Act) provides:

A party to an appeal who is dissatisfied with the decision of a District Court as being wrong in law may, with leave of the District Court, appeal to the High Court.

[17] In *O'Neill*,<sup>2</sup> Judge Cadenhead stated:

[24] The Courts have emphasised that for leave to be granted:

- (i) The issue must arise squarely from 'the decision' challenged: ... Leave cannot for instance properly be granted in respect of *obiter* comment in a judgment ...;
- (ii) The contended point of law must be “*capable of bona fide and serious argument*” to qualify for the grant of leave ...;
- (iii) Care must be taken to avoid allowing issues of fact to be dressed up as questions of law; appeals on the former being proscribed ...;
- (iv) Where an appeal is limited to questions of law, a mixed question of law and fact is a matter of law ...;
- (v) A decision-maker's treatment of facts can amount to an error of law. There will be an error of law where there is no evidence to support the decision, the evidence is inconsistent with, and contradictory of, the decision, or the true and only reasonable conclusion on the evidence contradicts the decision ...;
- (vi) Whether or not a statutory provision has been properly construed or interpreted and applied to the facts is a question of law ... .

[25] Even if the qualifying criteria are made out, the Court has an extensive discretion in the grant or refusal of leave so as to ensure proper use of scarce judicial resources. Leave is not to be granted as a matter of course. One factor in the grant of leave is the wider importance of any contended point of law ... .

[18] In *Cullen*,<sup>3</sup> the Court of Appeal stated the following principles applying to the grant of special leave to appeal:

[5] ... The Court will exercise this power if satisfied that there is a serious question of law capable of bona fide and serious argument in a case involving some interest, public or private, of sufficient importance to outweigh the cost and delay of a further appeal. Other relevant considerations include the desirability of finality of litigation and the overall interests of justice. The primary focus is on whether the question of law is worthy of consideration.

<sup>2</sup> *O'Neill v Accident Compensation Corporation* [2008] NZACC 250.

<sup>3</sup> *Cullen v Accident Compensation Corporation* [2014] NZCA 94, affirmed in *Accident Compensation Corporation v Anderson & O'Leary Ltd* [2023] NZCA 198, at [18].

### **The Court's judgment of 21 March 2023**

[19] Judge Henare noted that the submissions of counsel raised two questions. The first question was whether the progression of renal stenosis is a physical injury, and whether there is a new injury. The second question was whether there was an alternative treatment that would have prevented the claimed injury and that could and should have been given. Judge Henare's assessment of these two questions now follows.

#### *Whether renal stenosis is a physical injury*

[20] The Court agreed that there is ample case law supporting the principle that undetected and naturally occurring physiological conditions may amount to a treatment injury. However, the authorities were also clear there cannot be cover for progression of a gradual process or disease until a physical injury has occurred.

[21] In *Cumberland*,<sup>4</sup> the Court of Appeal held that the analytical focus for the purposes of cover must be on the physical consequences to the claimant. Further, the availability of cover is subject to causation. Likewise, in *Allenby*,<sup>5</sup> the Supreme Court found that the progression of a disease, such as a cancerous tumour is a personal injury if caused by medical misadventure.

[22] The Court accepts counsel's submission that the decision in *AZ*<sup>6</sup> does not assist Ms Boulton's case. The High Court did not focus on the underlying disease of spina bifida, but rather what the physical injuries were the progression of that disease had on the claimant.

[23] Here, has the treatment failure caused a physical injury, other than harm to the right renal artery and kidney for which cover has been granted by the Corporation? I find the weight of the medical evidence does not support right renal arterial stenosis as a physical injury for the reasons that follow.

---

<sup>4</sup> *Cumberland v Accident Compensation Corporation* [2013] NZCA 590; [2014] 2 NZLR 373.

<sup>5</sup> *Allenby v H* [2013] 3 NZLR 425.

<sup>6</sup> *AZ v Accident Compensation Corporation* [2021] NZHC 2752, [2021] 3 NZLR 791.

[24] The evidence shows FMD was first identified in May 2016 as an unexpected finding on CT scan of chest and aorta after Ms Boulton presented to hospital with chest pain. The report from Dr Balasingham indicated “moderately atrophic right kidney with arterial appearance consistent with right renal artery fibromuscular dysplasia”. The Court observes in the article entitled “First International Consensus on the diagnosis of Fibromuscular Dysplasia”, attached to Dr Hay’s report, that FMD is similarly described as renal FMD, distinguished from other forms of FMD, for example cerebrovascular FMD.

[25] The diagnosis of right renal narrowing was confirmed by Dr McGregor, nephrologist in June 2016. The medical literature also notes that narrowing and stenosis are synonymous terms which mean narrowing of the affected arteries.

[26] Dr Brown noted there was evidence of early right renal stenosis with FMD which progressively worsened in the period 2003-2016 based on Dr Irvine’s report of December 2016. The Corporation accepted this evidence. Dr Brown also noted evidence of emerging stenosis in the left renal artery.

[27] Dr Irvine considered FMD and the effects of stenosis:

Fibromuscular dysplasia is a condition that leads to narrowing of the artery [stenosis] and therefore the kidney will have a reduced/impaired blood flow. The reduced blood flow can result in secondary hypertension and if the narrowing is severe and progressive, then this can result in atrophy of the kidney.

[28] The nephrologists agree Ms Boulton's multifocal FMD is a condition that has the appearance of a string of beads. Dr Hay described FMD as a stenotic disease:

...as beaded (multifocal) or focal lesions in medium or small-sized arteries, though the clinical phenotype of FMD has recently been expanded to include arterial dissection, aneurysm and tortuosity. FMD most commonly affects the renal and extracranial carotid and vertebral arteries, but nearly all arterial beds may be affected, and multivessel involvement is common ...

FMD may result in two types of angiographic appearance: (1) focal FMD, which may occur in any part of the artery or (2) multifocal FMD, alternating areas of stenosis and dilation (the so-called string of beads), which usually occurs in the mid and distal portions of the artery. This morphology most often occurs in the renal and carotid arteries but may occur in any artery in the body ... FMD is primarily a stenotic disease ...

[29] Dr Hay's evidence together with the medical literature she refers, indicate FMD has the following characteristics:

It is naturally occurring

Is an arterial disease

Is characterised by abnormal proliferation in the walls of the blood vessels

Commonly affects the renal, carotid and vertebral arteries

Causes stenosis of small and medium sized arteries

An effect of FMD is the progression of arterial stenosis which occurs regardless of whether the stenosis is managed or not.

[30] Dr Hay went on to discuss that an effect of renal arterial stenosis is the artery will be wider in some places and narrower in others. As cellular proliferation continues and arterial stenosis becomes severe, there is significant risk the artery will be deformed. Deformity may lead to the reduced or ineffective blood flow through the artery, leading to the death of the artery and the kidney to which it is connected.

[31] The evidence concerning causation and the aetiology of renal stenosis was considered by Judge Walker in her decision in *Boulton*<sup>7</sup> determining the claim for cover for FMD. Her Honour declined the claim for cover for FMD because it was a pre-existing underlying health condition. Further, cellular proliferation caused by FMD was declined because it is and was a natural and inevitable consequence of a non-covered pre-existing health condition. Her Honour stated:

[150] There is no evidence before the Court however that this condition [FMD] is caused by any physical injury. It is accepted that this resulted in stenosis (areas of narrowing) in the renal artery ultimately affecting renal blood pressure but this is not itself a physical injury caused by an accident.

[32] Ms Boulton sought leave to appeal to the High Court. Considering the application, Judge Kelly upheld Judge Walker's decision.<sup>8</sup>

[45] In the absence of evidence of physical injuries, and the lack of evidence supporting a causal nexus between Ms Boulton's undiagnosed disease and further adverse health effects beyond the atrophy of her kidney, for which cover has been provided, the appeal cannot succeed.

---

<sup>7</sup> *Boulton v Accident Compensation Corporation* [2018] NZACC 133.

<sup>8</sup> *Boulton v Accident Compensation Corporation* [2020] NZACC 33.

[33] The Corporation agrees that, had the FMD and right renal arterial stenosis been diagnosed earlier, the kidney may have been able to be saved, which is why cover was granted for nephrectomy of the right kidney.

[34] On the evidence, it is apparent the aetiology of stenosis and FMD are not separate conditions, rather they are differing aspects of the same condition. They are inextricably linked with renal stenosis being the physical manifestation of the consequences of FMD being the irregular proliferation of cell results in the distorted blood vessels.

[74] Cover is granted where there has been progression of a disease if that progression results in a discrete physical injury. Here, the Court finds no discrete physical injury, other than the kidney and renal artery for which cover was previously granted.

#### *Alternative treatment*

[35] It is to be recalled Dr Milne had noted that while the CT scan did reveal evidence of FMD in the right renal artery, it was difficult to see without the benefit of hindsight. Further, the blind review of the scan undertaken by four other radiologists did not detect FMD. Dr Milne explained the Doppler assessment is an ultrasound technique “which assesses the velocity of blood vessels and is ideally suited identifying stenosis in arteries”. In consequence, the Corporation granted cover, not on the failure to detect, but on the basis there should have been earlier diagnosis of FMD using the Doppler test. FMD was not covered as it was a pre-existing underlying health condition.

[36] In his report of February 2017, Dr Milne discussed treatment of stenosis and outcomes:

Renal artery stenosis due to FMD is typically treated with percutaneous renal artery angioplasty, either with or without stenting. In 2017, stenting would be more likely employed than in 2003. The results of this treatment are often to achieve normalization of blood pressure without additional medical management. In addition to treating the hypertension, preservation of renal perfusion would likely have prevented the right kidney from becoming atrophied as was mentioned in the follow up CT scan of 19/5/2016, preserving its function.



[37] Whilst there is no doubt as to Dr Milne's qualifications as a radiologist, the complexity of the pathophysiology, angioplasty treatment and outcomes noted in the medical literature in evidence, means that weight is best placed on the opinions of renal specialists.

[38] Dr Irvine opined FMD that can be treated by angioplasty. He stated:

Fibromuscular dysplasia can be reduced through radiological intervention and angioplasty of the renal artery.

[39] The medical literature referred to both by Dr Irvine and Dr Hay shows that renal angioplasty acts as a balloon to expand the size of the gap between the arterial walls, enabling more blood to flow. However, angioplasty does not prevent the continuation of the abnormal cellular proliferation.

[40] Dr Hay explained there is no treatment available for the abnormal cellular proliferation in the wall of blood vessels that characterises FMD, so that the artery will be wider in some places and narrower in others. She stated no intervention could have prevented the beading as such because it proceeds irrespective of whether the stenosis is managed or not. She referred to medical literature in support of her opinion.

[41] The evidence shows that clinical judgment as to when intervention is best indicated entails taking into account a number of considerations including weighing benefits and risks. Further, medical studies show that outcomes are variable. For example, in young women, depending on the severity of FMD, long term monitoring may be indicated compared with an older demographic. In the article entitled "An outline of renal artery stenosis pathophysiology-a narrative review" it is noted that:

Stenosis less than 50% is considered to be mild and results in no significant reduction in renal blood flow (RBF); thus, it is not associated with impairment of renal function. Stenosis greater than 50-60% causes a pressure gradient greater than 15-20 mmHg, which is a hemodynamically significant feature of renal stenosis and a possible factor initiating renal vascular hypertension development ... RAS [ed: renal artery stenosis] is an anatomical diagnosis (clinically, usually taken into consideration when there is a > than or = to 75% narrowing of the diameter of a main renal artery or .50% luminol narrowing with a post-stenotic dilation), and many lesions identified with imaging studies, mostly in elderly patients, remain clinically insignificant.

[42] The critical issue therefore, is around clinical judgement as to when further intervention is indicated and appropriate. For example, questions arise whether angioplasty would relieve this stenosis; would stenting prevent recurrence of stenosis? Clinical judgment would involve consideration of the indications such as response to blood pressure treatment, patient compliance with blood pressure treatments, the impact of blood pressure on overall health and other such factors. The medical literature also notes adverse outcomes of angioplasty. The time when intervention is appropriate is undeniably complex, and patient focussed having regard to the particular circumstances.

[43] In this case, Dr Hay considered that, while earlier intervention by angioplasty to the right renal artery “may” have prevented the right kidney from becoming ischaemic and non-functional, she stated “we cannot be sure”. Dr Hay opined that a multidisciplinary team would have recommended right renal angioplasty some years earlier than 2016 if the FMD had been diagnosed.

[44] The Court observes Mr Hills’ opinion that the consequences of the missed diagnosis was the missed opportunity to manage the hypertension. Dr Hay agreed there were available treatments, including medication, that while unable to reverse the FMD and the stenosis, could have managed the effects of some aspects of it. Dr Hay noted that hypertension does not cause renal atrophy, rather stenosis causes renal atrophy. Equally, renal atrophy results in a decline in renal function.

[45] Dr Hay’s evidence is clear that FMD is incurable and there is no treatment for the abnormal cellular proliferation it causes. Further, the cellular proliferation that leads to renal artery stenosis cannot be stopped. Treatment is for the effects of the renal stenosis but only at the point where medical intervention by way of angioplasty is warranted which is a matter of clinical consensus.

[46] Counsel submitted that the position can be cross-checked by the treatment currently provided to Ms Boulton in respect of her left renal artery and kidney. There is evidence that Ms Boulton’s multifocal FMD is causing beading in her left renal artery and some stenosis, although there is no evidence of renal atrophy at present. At present, the medical evidence shows no intervention to treat the stenosis

itself has been recommended which demonstrates that renal artery stenosis and the progression of such stenosis itself does not require surgical intervention at present. Rather, it requires monitoring to see how it progresses and what effects, if any, it produces.

[47] Relying on Dr Irvine, Mr Schmidt too submitted that, although there has been some narrowing in the left renal artery, it has not reached a point where intervention was considered. The plan is to monitor the condition.

[48] Mr Schmidt's submission of a chance of a better outcome is to be considered in context of the medical evidence and the basis of cover already granted by the Corporation. The opportunity for angioplasty was missed because had there been earlier detection, then the right kidney may have been saved. The Corporation rightly granted cover for the physical injuries of right renal artery and right kidney atrophy that was caused by the failure to undertake the additional diagnostic test.

[49] The Court concludes that, while the evidence shows there was a treatment that may have been available to prevent damage to the right renal artery and right kidney atrophy, that is renal angioplasty, it was not given because the existence of FMD was erroneously not detected.

### *Conclusion*

[50] The Court upholds the decision at review that there is no new physical injury and concludes:

- [i] Cover for FMD was rightly declined because it is and was a pre-existing underlying health condition;
- [ii] Cover for cellular proliferation caused by FMD was rightly declined because it is and was a natural and inevitable consequence of a non-covered pre-existing underlying health condition;
- [iii] Cover for progression of renal stenosis was rightly declined because the narrowing of the right renal artery was a natural and inevitable consequence of a non-covered pre-existing underlying health condition; and
- [iv] Cover for the right renal artery and right kidney atrophy was correctly granted because a treatment would have been available to prevent damage to them, viz renal angioplasty, but it was not given because the existence of FMD was (erroneously) not detected.

### **The appellant's submissions**

[51] The appellant submits that the question of law for which leave is sought is: "Is advanced renal artery stenosis, caused by a failure to provide treatment, a treatment injury for the purposes of the Accident Compensation Act 2001?"

[52] The appellant's position is that the concept of treatment injury is intended to cover all downstream physiological effects caused by a treatment that satisfies the criteria for cover. In the present case, advanced renal artery stenosis is a physiological effect that arose out of the failure to provide treatment. It is also inherently harmful, as illustrated by the injuries it caused that the Corporation has agreed to cover – loss of the right renal artery and kidney. It is also the most likely cause of Ms Boulton's hypertension, and it has materially and permanently altered her physiological function

[53] The appellant submits that the question of law identified turns on the proper operation of the treatment injury provisions in the Act, specifically, whether the concept of treatment injury includes the condition causing harm (in this case renal artery stenosis) or whether it is limited to the discrete personal injuries caused by the condition (here, the loss of the right renal artery and right kidney).

[54] The appellant further submits that the answer to that question depends on whether the condition at issue is harmful and can be treated. If so, the treatment

injury includes both the harmful condition and the injuries caused by that condition. To illustrate, the appellant uses the example of cancer (a form of uncontrolled cell replication) which, if untreated, will cause tumours. The tumour itself can then progress to cause further physical injury such as, for example, brain damage. In the appellant's submission, provided the tumour can be treated, both the tumour and the brain damage constitute a physical injury.

[55] In relation to Judge Henare's decision that renal arterial stenosis is not a physical injury, the appellant challenges Judge Henare's finding that FMD and the stenosis caused by FMD are not separate entities, which led to her conclusion that the stenosis was a natural and inevitable consequence of a non-covered pre-existing underlying health condition (FMD). The appellant submits that the cellular proliferation caused by FMD and the stenosis that results from it are "physiologically interrelated but distinct".

[56] The appellant submits that, if a failure to provide treatment by way of angioplasty is the reason for providing cover for loss of the right renal artery and kidney, and the purpose of angioplasty is to reverse stenosis caused by FMD, then the progression of stenosis must be a treatment injury. Progression of a naturally occurring condition that could have been halted or reversed by treatment is a treatment injury in terms of higher court decisions.

[57] The appellant notes that it is accepted that there was progression of stenosis beyond the point where angioplasty could have reversed stenosis caused by FMD. Stenosis is a physical condition, and progression of stenosis is harmful. Here it resulted in destruction of the right renal artery and right kidney. Whether this amounts to a treatment injury is a question of law for the High Court to determine. Similarly, whether there is a difference between cellular proliferation and the progression of stenosis should be determined by the High Court.

## **Discussion**

[58] Section 32(1) of the Act provides that treatment injury means personal injury that is suffered by a person receiving treatment from a registered health professional

and caused by treatment, and is not a necessary part, or ordinary consequence, of the treatment. Section 26(1)(b) provides that personal injury includes physical injuries suffered by a person.

[59] In this matter, Judge Henare first addressed whether treatment failure caused a physical injury, other than harm to the right renal artery and kidney for which cover had been granted by the Corporation. Judge Henare conducted a careful assessment of the available medical evidence and a previous District Court finding on Ms Boulton's condition. Judge Henare found that the weight of the medical evidence did not support right renal arterial stenosis as a discrete physical injury.

[60] This Court finds that Judge Henare's conclusion was one open to Her Honour to find on the relevant evidence at hand.

[61] Judge Henare then addressed whether there was an alternative treatment that would have prevented Ms Boulton's claimed injury and that could and should have been given. Again, Judge Henare conducted a careful assessment of the available medical evidence and had regard to the cover already granted by the Corporation (for harm to the right renal artery and kidney). The medical evidence showed, *inter alia*, that: FMD is an arterial disease which is naturally occurring; an effect of FMD is the progression of arterial stenosis which occurs regardless of whether the stenosis is managed or not; and there is no treatment available for the abnormal cellular proliferation in the wall of blood vessels that categorise as FMD.

[62] Judge Henare concluded that the Corporation rightly declined cover for FMD as a pre-existing underlying health condition, and rightly declined cover for cellular proliferation caused by FMD, and for progression of renal stenosis, as natural and inevitable consequences of a non-covered pre-existing underlying health condition.

[63] This Court finds that Judge Henare's conclusion on this question was also open to Her Honour to find on the relevant evidence at hand.

**The Decision**

[64] In light of the above considerations, the Court finds that Ms Boulton has not established sufficient grounds, as a matter of law, to sustain her application for leave to appeal, which is accordingly dismissed. Ms Boulton has not established that Judge Henare made an error of law capable of *bona fide* and serious argument. Even if the qualifying criteria had been made out, this Court would not have exercised its discretion to grant leave, so as to ensure the proper use of scarce judicial resources and the finality of litigation.

[65] Costs are reserved.

A handwritten signature in black ink, appearing to read 'P R Spiller', written in a cursive style.

Judge P R Spiller,  
District Court Judge