‘I’ve never had such a bad headache’
A missed diagnosis

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This is the second in a series of articles highlighting common medicolegal issues in general practice. Written by the claims and advocacy team at medical defence organisation Avant, the series is based on actual cases, with some details changed for privacy. Here, the opportunity to diagnose a serious medical condition was missed, leading to a catastrophic outcome for the patient.

Doctors are commonly faced with difficult management decisions. Sometimes these decisions can be influenced by red herrings, time and resource pressures, and at times, pressures from patients themselves. This case history illustrates that succumbing to these pressures, failing to act on your ‘instincts’ and failing to take a careful history can lead to adverse consequences.

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Case history

Ms Black, aged 43 years, had travelled to the regional area where she grew up for a school reunion party and was planning to return home the following afternoon. On the Sunday morning after the party she woke with a sudden, severe headache radiating to the back of her neck. She sought medical attention at the emergency department of the local hospital and saw Dr Smith, a local GP and visiting medical officer.

Ms Black gave a history of heavy drinking the night before and limited sleep. She said that although she suffered from headaches from time to time, she had never experienced a headache so debilitating. She had no significant family history.

Dr Smith examined Ms Black, noting that she had some dizziness and that her blood pressure was 160/90 mmHg. She had no neck stiffness or neurological signs. Dr Smith recorded the severity and sudden onset of the headache but did not consider these when making a diagnosis.

No imaging was available at the hospital on the weekend. Ms Black was treated with an infusion of intravenous saline and with morphine for the pain and was monitored for several hours. A full blood count, erythrocyte sedimentation rate, C-reactive protein level and biochemistry were all normal. Her pain improved, but her blood pressure remained high, with the lowest reading being 150/85 mmHg.

Ms Black was adamant that she wanted to leave the hospital so that she could return home. After several hours of monitoring, with her headache improved, she was discharged with instructions to see her GP the following week. She was not given any other advice. Her headache was attributed to her alcohol intake the night before.

Ms Black returned home and made an appointment with her GP for Wednesday of that week. On Tuesday afternoon she developed a severe headache and left-sided weakness. She was rushed to her local hospital and later underwent investigations,

including a CT scan. She was then transferred to a tertiary hospital and underwent cerebral angiography. The investigations showed that Ms Black had sustained two subarachnoid haemorrhages. She had two aneurysms, one of which was reported to have bled recently; the other showed no signs of recent bleeding. Only one of the aneurysms could be operated on immediately because of the location. This procedure, coil embolisation, went smoothly.

Six months later, Ms Black underwent a further coil embolisation procedure and unfortunately suffered a stroke. After the second surgery, she spent many months undergoing physiotherapy and speech therapy. She could not return to work for over six months, and when she did return she could work only part-time.

Ms Black commenced legal proceedings in the Supreme Court against the regional hospital and Dr Smith. Among other things she alleged that Dr Smith and the regional hospital failed to:

- take a proper and accurate history
- refer her for a CT scan or MRI
- refer her urgently to a neurosurgeon
- identify the sudden onset of the headache as being indicative of a cerebral aneurysm
- inform her that she was at risk of suffering a neural deficit and to seek urgent treatment if her symptoms persisted
- report to her GP
- take precautions to avoid the risk of stroke.

No claim was brought against the surgeon or the hospitals where the coil embolisation procedures were performed.

Discussion

Did Dr Smith act appropriately?

Patients presenting with headaches are very common in general practice and in emergency departments.[1] Subarachnoid haemorrhage is uncommon and difficult to diagnose, and is often misdiagnosed.[1] Recommendations on how to assess patients presenting with headaches are beyond the scope of this article but are discussed in another article in this issue of *Medicine Today* and elsewhere.[2,3] Clearly, not all patients with headaches require imaging. Rather, careful and meticulous history taking that seeks 'red flags' is crucial when assessing any patient presenting with a headache.[2-4] In Ms Black's case, red flags included the sudden onset of the headache and its severity, of a degree that she had never previously experienced.

Legal issues: standard of care

A number of questions were raised in this case regarding Dr Smith's standard of care, as follows.

- Did he take an adequate history?
- Why did he not appreciate the significance of the sudden nature of the headache in a patient who did not usually have headaches?
- Should he have investigated the persistent hypertension further?
- What role did the absence of CT facilities and Ms Black's desire to go home play in Dr Smith's decision to discharge her from hospital?
- Was sending Ms Black home to make an appointment with her GP a reasonable action or was it the 'easy way out'?

Expert evidence concluded that there was a clear delay in diagnosis resulting from Dr Smith's failure to refer Ms Black for CT, MRI or neurological review. However, the primary legal issue was what impact the delay in diagnosis had on Ms Black's outcome; that is, was she worse off because of the delay, and by how much?

Legal issues: causation

'Causation' is a difficult concept and has been clarified in recent years by case law, such as *Wallace v Kam* [2013].[5] To establish a right to damages, a plaintiff must convince a court that on the balance of probabilities, the parties (doctor, hospital, other) owed a duty of care to the patient, that there was a breach of that duty and that damages resulted from that breach, as discussed in the previous article in Medicolegal Matters (May 2015 issue of *Medicine Today*).[6]

The primarily allegation made by Ms Black was that the stroke after the second surgery would not have occurred if it were not for the delay in diagnosis of the subarachnoid haemorrhage. The expert evidence was divided on this issue. Defining the damage attributable to any failure to refer and diagnose the initial subarachnoid haemorrhage was both medically and legally difficult.

The actions of Dr Smith and the surgeon

All the expert witnesses were critical of the failure of Dr Smith to arrange a CT scan on the Sunday that Ms Black presented. They opined that if a scan could not have been arranged urgently then Dr Smith could have transferred Ms Black or arranged for her to have a scan the following day and kept her under observation. At a minimum, the experts opined that Ms Black should have been advised of the differential diagnosis, and arrangements should have been made for her to have an urgent scan when she returned home. This case highlights the difficult position of doctors when imaging facilities are not available, particularly over weekends and public holidays.

With respect to the surgeon, the possibility of stroke was an inherent risk of the second surgery, which unfortunately materialised in this case. As was the case in *Paul v Cooke* [2013], the courts will look at whether the damage suffered was a result of an inherent risk of the surgery, and whether that risk was accepted by the patient.[7] In Ms Black's case, the surgeon had discussed the risk at length with her as part of the consent process. Therefore no liability attached to the surgeon's actions.

Outcome

A challenge for parties in this type of litigation is the likelihood that the legal process will not answer definitively whether a poor outcome could have been avoided. In this case, no expert could be sure that if a CT had been done on the Sunday that the haemorrhage would have been seen, or that earlier treatment would have averted the second haemorrhage and the later stroke. On the balance of probabilities, the court would most likely have determined that earlier diagnosis would have resulted in earlier treatment, and the damage would have been less significant. Although Dr Smith's actions did not cause the haemorrhages, from the causation perspective, the outcome would have been different if he had made different decisions.

As the medical aspects of this case were complex, legal costs were high and expert opinion was crucial, the parties reached a compromise with Ms Black and paid a settlement. Some time was spent negotiating damages, including a discount for the complexities surrounding causation. The claim was settled prior to a hearing, after several years of investigation and a slow court process.

Ms Black did not express any ill will against Dr Smith, but the events had a major impact on her life. Because of the extent of her disabilities and the high level of care and treatment she required, she was forced to bring a claim against him.

Risk management

Sudden-onset headache of a type or severity never before experienced is a red flag that mandates further investigation or review. Given that urgent imaging facilities were not available, Dr Smith could have taken other steps. His gut instinct was that the diagnosis was more serious than an alcohol 'hangover', but he was falsely reassured by the improvement in Ms Black's pain and influenced by her eagerness to go home. Dr Smith could have arranged imaging elsewhere or urgent imaging the following day. With the benefit of hindsight, if he had openly discussed with Ms Black the reasons for his concern and his differential diagnosis then she may have been more willing to stay in hospital.

Some tips for risk management that arise from this case are summarised in the Box and discussed below. These are particularly relevant when a diagnosis is unclear and follow up is uncertain.

Frank and open discussions with patients are important. Other than in exceptional circumstances in which more information may be detrimental to the patient's health, it is important to outline a 'safety net' for the patient and to explain your reasoning. Points to cover include:

- your diagnosis and differential diagnosis
- what investigations (if any) are required and why
- your plan and recommendation, and the reason for the recommendation
- what the patient needs to do if the symptoms change or worsen.

RISK MANAGEMENT TIPS

- Clearly outline your diagnosis, differential diagnosis and management plan to patients and explain your reasoning
- Explain to patients what they should do if symptoms change or worsen
- Seek support and a second opinion if unsure about the diagnosis and management
- Give clear advice to patients and document that advice
- For patients treated in hospital, document the history, results of investigations, other findings and management instructions in the patient's hospital records and discharge summary

Clinicians should seek out support and a second opinion from colleagues when they are unsure about what to do next. They should not allow the easiest option to be the patient's only option.

Patient self-determination is important, and a patient may decide not to take their doctor's advice even when it is in their best interests. In that case, it is even more important that advice is clear and well documented. For example, in the case of *Varipatis v Almario* [2013], the court considered the doctor's records closely when determining whether advice had been given to the plaintiff regarding the impact of his weight gain and exploring the treatment options, including bariatric surgery.[8]

When a patient is discharged from hospital, a clear history, results of investigations, other findings and management instructions must be documented in the records and also in the discharge summary. A clear discharge summary also helps the patient's GP in arranging referrals, follow-up testing and monitoring of the patient. MT

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COMPETING INTERESTS: None.