



Failure to diagnose acute myocardial infarction

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Case histories are based on actual medical negligence claims, however, certain facts have been omitted or changed by the author to ensure the anonymity of the parties involved.

An allegation of failure to diagnose acute myocardial infarction is a relatively common cause of medical negligence claims against general practitioners. The main factors contributing to these claims are failure to order appropriate investigations (including electrocardiograms), failure to suspect myocardial infarction, failure or delay in hospital admission and/or referral and misinterpretation of investigations. This article outlines risk management strategies for GPs to minimise the possibility of a claim arising from the failure to diagnose acute myocardial infarction.



Case history

The 59 year old male patient had regularly attended the general practitioner for more than 12 years. During this time, he was treated for hypertension, noninsulin dependent diabetes mellitus, hyperlipidaemia and depression. In April 1997, the patient presented to the GP complaining of chest pain. An electrocardiogram (ECG) and cardiac enzymes were normal. The GP referred the patient to a cardiologist. At review one week later, the cardiologist obtained a history of the patient waking with chest pain which lasted on and off for two days. The patient underwent stress ECG testing and an echocardiogram. These tests were normal and, in the letter to the GP, the cardiologist wrote: 'his symptoms are most likely oesophageal in origin and an H2-antagonist might be appropriate'. In October 1998, the patient presented with a history of intermittent epigastric and chest pains. An endoscopy revealed minor gastric erosions and he was treated with ranitidine (Zantac).

On 7 October 2000, a Saturday morning, the patient attended the GP seven hours before boarding a flight to Los Angeles. The patient complained of epigastric pain and nausea that had woken him from his sleep. He was anxious to travel later in the day. The GP made a provisional diagnosis of gastro-oesophageal reflux and prescribed omeprazole (Losec) and Mylanta. In the patient's medical records, the GP recorded: 'epigastric pain. Losec and Mylanta'. During the flight to Los Angeles, the patient continued to feel unwell. Soon after his arrival, the patient experienced worsening epigastric pain. He was admitted to hospital where a diagnosis of acute myocardial infarction was made.

In December 2001, the patient commenced legal proceedings against the GP.

Medicolegal issues

In the Statement of Claim, the patient alleged that the GP had failed to correctly diagnose his condition at the consultation on 7 October 2000. According to the claim, the GP's failure to diagnose ischaemic heart disease deprived the patient of the opportunity to be treated with thrombolytic therapy and/or other coronary interventional procedures. This failure to diagnose had caused the patient to suffer from an acute myocardial infarction, complicated by the development of a left ventricular aneurysm. The claim alleged that the patient was now unable to work and required assistance with domestic duties.

An expert opinion served with the Statement of Claim was critical of the GP's standard of care. However, this opinion was based on the patient's version of the consultation, namely that the patient had complained of epigastric, chest and left arm pains at the consultation on 7 October 2000. An expert GP opinion obtained on behalf of the defendant GP noted that: 'according to the

GP's medical records the patient complained of epigastric pain only. The patient was very anxious to travel, and if he complained of epigastric pain only at the time, then it is not surprising that the GP did not investigate this pain further for a possible cardiac cause. Considering his previous endoscopy and the opinion of the cardiologist, as well as a number of investigations, which were considered to exclude coronary artery disease, it would not be surprising that the diagnosis of acute myocardial infarction was not made'. Nevertheless, the defendant GP conceded he had not asked the patient any questions about the nature and duration of the epigastric pain; nor did he inquire about any associated symptoms or previous episodes of pain. The GP did not perform any physical examination of the patient at the consultation. The expert opinion concluded that: 'in a 59 year old patient, with multiple risk factors for coronary heart disease, presenting with epigastric pain and nausea, the GP should have considered the possibility of ischaemic pain and taken a more detailed history, performed a physical examination and possibly an ECG. What is different about this incident is the patient's imminent departure overseas and, despite the fact that the GP probably felt pressured to allow the patient to travel, he should have advised that it was not safe to do so until the pain was investigated'.

Based on these expert opinions and the GP's failure to take a detailed history and perform a physical examination at the consultation, the claim was considered indefensible and was settled.

Discussion

Claims against GPs involving an allegation of 'failure to diagnose' account for approximately 50% of the medical negligence claims against Australian GPs. Many of these claims involve allegations of a failure to diagnose medical conditions including:

- myocardial infarction,
- meningitis, and
- subarachnoid haemorrhage.

Coronary heart disease is a relatively common condition in the community and accounts for 22% of all deaths in Australia. For men over the age of 40, the risk of having coronary heart disease at some time in their future life is one in two.¹

In a claim study performed by the Physician Insurers Association of America, the top five factors contributing to the failure to diagnose acute myocardial infarction were:

- failure to order or delay in ordering appropriate investigations - 55% of claims
- failure to suspect myocardial infarction - 48% of claims
- failure to admit or delay in hospital admission - 39% of claims
- failure to refer or delay in making a timely referral or consultation - 31% of claims
- misinterpretation of results of investigations, including ECGs - 27% of claims.²

The study found that the most common presenting complaints from patients in the failure to diagnose myocardial infarction claims were:

- 93% of patients reported pain or pressure - 83% of these patients described pain in the chest or sternal region and 27% reported radiating arm pain either alone or in conjunction with chest pain
- 29% of patients reported dyspnoea
- 19% of patients reported diaphoresis
- 18% of patients reported nausea and/or vomiting.

Nearly 70% of the patients included in the study reported no prior history of coronary heart disease. The study findings suggested that, in spite of presenting symptoms and risk factors, the medical practitioners may not have responded aggressively enough to patients with possible cardiac conditions and therefore failed to identify the correct diagnosis.

The most common incorrect diagnoses made by the medical practitioners in the study were:

- gastrointestinal problems - 26% of claims
- musculoskeletal pain, most commonly

costochondritis - 21% of claims.

Risk management

- In patients who present with atypical pain or other symptoms that could be cardiac in origin, GPs should maintain a high index of suspicion for coronary heart disease - particularly in those patients with known cardiac risk factors.
- Carefully document in the medical records the patient's history, physical findings and any investigations performed - significant negative findings, such as 'no chest pain', should also be included in the medical records.
- Do not let the patient convince you they are OK, if you have reason to doubt - a patient's emotional state (denial, stoicism, anxiety) may prevent the patient from providing a complete or reliable history.

SUMMARY OF IMPORTANT POINTS

- Failure to diagnose acute myocardial infarction is a common cause of 'failure to diagnose' claims involving GPs.
- General practitioners should maintain a high index of suspicion of ischaemic heart disease in patients presenting with atypical pain and known risk factors for coronary heart disease.
- Always carefully document the patient's history, physical examination and investigations (including any significant negative findings) in the medical records.

References

1. National Heart Foundation of Australia: www.heartfoundation.com.au/statistic/docs/hsv_disease_2001.htm (last accessed 24 July 2002).
2. Physician Insurers Association of America. Enduring material of acute myocardial infarction claims. In: Failure to diagnose acute myocardial infarction (CD-ROM). NORCAL Risk Management, 2000.