QUEENSLAND COURTS

# CORONERS COURT OF QUEENSLAND

# FINDINGS OF INVESTIGATION

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| CITATION: | **Non-inquest findings into the death of Mr TAM** |
| TITLE OF COURT: | Coroners Court |
| JURISDICTION: | Southport |
| DATE: | 20 September 2017 |
| FILE NO(s): | 2013/4088 |
| FINDINGS OF: | James McDougall, Coroner |
| CATCHWORDS: | CORONERS: atrial fibrillation, ablation, pericardial effusion, AHPRA investigation, clinical opinion |
| Counsel Assisting: | Ms Rhiannon Helsen |

# Table of Contents

## Background

Mr TAM was 62 years of age at the time of his death. He suffered from a number of significant health conditions including, ischaemic heart disease, atrial fibrillation, type II diabetes, chronic renal failure and deep vein thrombosis. He was prescribed a myriad of medications, which he was required to take regularly, and had coronary artery stents inserted in 2001, 2011 and 2013 in an attempt to treat and manage his heart disease.

On 5 July 2013 and 10 October 2013, Mr TAM underwent atrial fibrillation ablation procedures, which were performed at a private hospital by Cardiologist, Dr K-YL. Records suggest that Dr K-YL had consulted with Mr TAM on a number of occasions prior to each procedure. Following the surgery, it did not appear that there was any acute procedural or early complications.

On 23 October 2013, Mr TAM was admitted to hospital for the elective insertion of an automatic implantable defibrillator. At around this time, he complained of burning chest pain for which he was trialled on antacid. As this treatment was ineffective, an angiogram was performed to determine whether a pulmonary emboli was present. As this was not identified, Mr TAM was discharged home.

On 28 October 2013, Mr TAM was once again admitted to another private hospital having continued to suffer from recurring chest pain. Upon admission, he underwent a chest X-ray, which showed an air-fluid level in the pericardial space. An echocardiogram performed the same day also showed the presence of a '*moderate pericardial effusion with evidence of tamponade'.* These tests confirmed that Mr TAM had fluid in the space between his heart wall and the surrounding pericardial sac, which was impeding contraction of the heart. It was suspected that the air and fluid in the pericardial space may have been due to an atrio-oesophageal fistula, which is a rare known complication of atrial ablation. However, a chest CT with intravenous and oral contrast was unable to demonstrate the fistula.

Mr TAM subsequently underwent emergency pericardial drainage. After the drain was situated in the pericardial sac, he was ventilated and managed in the intensive care unit. His progressive renal failure was also managed with dialysis during this time.

On 30 October 2013, an oesophageal fistula was confirmed on gastroscopy, and was described as a '*large 12 mm chronic fistula*' exuding pus.

On 1 November 2013, Mr TAM was returned to surgery, where a laparotomy, omental patch to the oesophageal fistula, thoracotomy and closure of an atrio-septal defect were performed. Post-operatively, he experienced several complications, including low blood sodium, low blood oxygen and required inotropic support.

On 8 November 2013, a tracheostomy and bronchoscopy were performed. Three days later, Mr TAM continued to experience spiked fevers, an elevated white blood cell count, worsening renal failure and a need for ongoing support to maintain and regulate his blood pressure, as well as the recurrence of his atrial fibrillation. No specific site of infection was able to be found for the cause of his apparent sepsis. A CT scan of his chest performed on 7 and 11 November 2013, showed a persistent leak at the site of the pericardial oesophageal fistula. Mr TAM was treated with several antibiotics during the course of his admission.

On 14 November 2013, Mr TAM deteriorated and was found to have had a massive stroke. In consultation with his family, active medical intervention were ceased and he passed away at 11:25 am that day.

## Autopsy findings

An internal and external post-mortem examination was conducted by a Forensic Pathologist on 21 November 2013. A number of toxicological tests were also carried out.

At autopsy, the heart was found to be markedly enlarged and dilated, with severe degenerative narrowing of the coronary arteries. Evidence of cardiomyopathy was also present. The Forensic Pathologist noted that one of the known complications of cardiomyopathy and ischaemic heart disease is the development of arrhythmias, which Mr TAM recurrently suffered.

An irregular hole in the left atrium of the heart was also found in the vicinity of where the radio-frequency ablation procedures had occurred in October 2013. This coincided with a hole in the pericardial sac, forming an oesophago-cardiac fistula. The Forensic Pathologist noted that the fistula had been treated surgically previously, and there were no specific complications arising as a result of that surgery. However, leakage of contents of the oesophagus had caused significant inflammation in the surrounding chest tissues, which is a rare, but known, complication of radio-frequency ablation.

Due to the long-time period between the radio-frequency ablation procedure on 10 October 2013, and his death, it was difficult to confirm what the initial adverse event had been. The Forensic Pathologist opined that the possibilities included:

- Perforation of the left atrial muscle at the time of the procedure, through the pericardium into the tissues around the oesophagus. However, it was noted that the lack of abnormalities on the post-procedure tests would suggest this was not the case; or

- Inflammation around the site of the ablation in the left atrium, which progressed over the following days until the heart muscle perforated, with extension through the overlying pericardium, and continued to inflame over coming days until the oesophagus also perforated. It was noted that this explanation would explain the long delay between the ablation procedure and the onset of his specific symptoms.

It was found that many of the major organs, including the brain, kidneys and heart, had areas of tissue death, which had been caused by blood clots blocking the small arteries supplying them with blood. This subsequently caused severe dysfunction in these organs, which was the direct cause of death. The direct cause of the thromboemboli was not apparent at autopsy, with no blood clots seen in the heart.

Ultimately, the cause of Mr TAM's death was found to be the effects of infarction in multiple major organs as a result of thromboemboli in their supplying arteries. This thromboemboli arose secondary to a fistula between the heart and oesophagus, which developed after a radio-frequency ablation procedure to treat arrhythmias caused by his cardiomyopathy and ischaemic heart disease.

## Family concerns

Mr TAM's wife has expressed significant concern as to the circumstances of her husband's death. Essentially, she questions the competency of the ablation procedures performed by Dr K-YL, as well as the subsequent insertion of the defibrillator at the private hospital. Shortly after Mr TAM's death, his wife claims that Dr K-YL offered her financial compensation for her loss.

His wife has also alleged that the Hospitals involved in Mr TAM's care have attempted to cover up and reduce the severity of what occurred.

I have considered all of the concerns and matters raised by Mr TAM's wife during the course of the coronial investigation, when reaching my conclusions regarding Mr TAM's death.

## AHPRA investigation

Mr TAM's wife subsequently made a formal complaint against Dr K-YL to the Office of the Health Ombudsman (OHO). Following an investigation, this matter was referred to the Australian Health Practitioner Regulation Agency (AHPRA).

### *Clinical opinion*

As part of the investigation, a clinical opinion was sought from Specialist Cardiologist, Dr GY. Relevantly, Dr GY found as follows:

- Having considered all of the relevant medical records and other supporting documentations, Dr GY noted that atrio-oesophageal fistula is the most feared complication of cardiologists, who regularly undertake ablation of atrial fibrillation. Whilst it is an infrequent event, the consequence is devastating. To date, there has been no clear strategy identified that can eliminate this complication, which even with therapy and treatment, is often fatal. Dr GY notes that this risk, however, has to be balanced against the large number of patients, who benefit greatly from atrial fibrillation ablation and have no complications.

- In relation to Dr K-YL's conduct, Dr GY notes that his letters to the other treating doctors involved in Mr TAM's care, suggest that the risks associated with atrial fibrillation ablation were discussed with the patient on a number of occasions. He did not consider that the failure to provide Mr TAM with written material about the procedure would represent inadequate care or a standard of care that falls below contemporary levels.

- Dr GY states that a diagnosis of atrio-oesophageal fistula can be difficult, however, it is important to maintain a high index of suspicion as early therapy can represent the best chance for survival. While he considers that Mr TAM's symptoms leading up to and at the time of his presentation on 28 October were suspicious of this condition, they were not definitive. Dr GY is of the view that there was no significant delay between the time of his presentation and the institution of appropriate management and tests to confirm the cause of his condition.

Accordingly, Dr GY concluded that the management of Mr TAM was undertaken in a collaborative fashion involving a range of appropriate specialists. He notes that there is certainly no consensus on the ideal management of this condition, and in his opinion, the treatment instituted in Mr TAM's case was reasonable, and met appropriate standards of care.

### *Committee of the Medical Board of Australia decision*

On 27 April 2017, the Committee considered the complaint and decided to take no action against Dr K-YL pursuant to s.179 (2)(a) of the Health Practitioner Regulation National Law. The reason for the decision are as follows:

I. Informed consent

The complainant alleged that Dr K-YL had failed to advise Mr TAM of the risks of the ablation procedure, and modified correspondence and records at a later date in an attempt to conceal his failings.

Dr K-YL provided a response to the complaint, whereby he noted that the standard risks of the procedure were discussed with Mr TAM during the consultations, a number of which Mr TAM's wife did not attend.

Dr GY considered this element of the complaint, and found that he could not provide a firm opinion as to whether or not the specific issue of atrio-oesophageal fistula and potential death from this were outlined either in discussion or writing.

Having considered the submissions received by the complainant, Dr GY's view and the response provided by Dr K-YL, the Committee found that there was insufficient evidence on which to form a reasonable belief that the practitioner had failed to obtain informed consent for the procedures performed on 15 July 2013 and 10 October 2013.

The Committee did note that Dr K-YL has since instituted a practice to provide every patient with an information sheet explaining the procedure, in addition to an oral discussion. He now ensures that all patients return for a follow-up consultation once they have had the opportunity to read the information sheet, preferably with a next of kin present.

II. Clinical care – inadequate or inappropriate treatment

The Committee formed the view on the available information, which included the complaint, Dr K-YL's submission and Dr GY's opinion, that there was insufficient evidence on which to form a reasonable belief that the practitioner's professional performance was below the standard reasonably expected of a practitioner of an equivalent level of training or experience.

III. Clinical care – missed, incorrect or delayed diagnosis

As above, having considered the available information, it was held that there was insufficient evidence on which a reasonable belief could be formed that the practitioner's professional performance regarding post-surgical management could be considered to be below the standard expected of a practitioner of an equivalent level of training or experience.

IV. Record keeping – inadequate, inaccurate or misleading

The complainant alleged that Dr K-YL had modified clinical records in relation to Mr TAM, particularly referral letters.

Records obtained revealed that Dr K-YL had amended letters sent previously in relation to Mr TAM, including further changes made on the date of his death. Furthermore, Dr K-YL's records dated 22 March 2013, 9 October 2013 and 20 October 2013 (and subsequent amendments relating to informed consent) were not contemporaneous, made at the time of the events or within a reasonable time afterwards.

Having considered the evidence obtained, the Committee found that this issue was substantiated, as Dr K-YL's clinical record keeping was inadequate or inaccurate. Nonetheless, he was able to demonstrate that he had since undertaken relevant education and satisfactorily reflected on his practices. As the practitioner was considered to have taken action to improve his performance in clinical record keeping, the Committee determined that it was not necessary to take any further action to protect the public.

**Conclusion**

Mr TAM was 62 years of age when he died as a result of multi-organ infarctions following on from an ablation procedure to treat arrhythmias associated with cardiomyopathy and ischaemic heart disease. In addition to heart disease, Mr TAM suffered from a number of significant health conditions, which included chronic renal failure and deep vein thrombosis.

It is clear that Mr TAM suffered from significant, ongoing heart problems, which continued to worsen prior to his death. The atrio-oesophageal fistula he suffered as a complication of the ablation procedure, whilst rare, is a known risk. I accept that whilst Mr TAM appears to have had symptoms prior to his admission to Hospital on 28 October 2013, which were suggestive of this condition, they were certainly not definitive. It also does not appear that there was any significant delay between his presentation to hospital on this last occasion and appropriate attempts, which were made to identify and then manage his condition.

Given the circumstances of this matter, and the investigation and findings made by AHPRA, I am of the view that an inquest into Mr TAM's death would not be in the public interest, and the matter can be closed by way of findings.

James McDougall
Southeastern Coroner
Southport
20 September 2017