

Case report

A forensic diving medicine examination of a highly publicised scuba diving fatality

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Abstract

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A high-profile diving death occurred in 2003 at the site of the wreck of the *SS Yongala* off the Queensland coast. The victim's buddy, her husband, was accused of her murder and found guilty of manslaughter in an Australian court. A detailed analysis of all the evidence concerning this fatality suggests alternative medical reasons for her death. The value of decompression computers in determining the diving details and of CT scans in clarifying autopsy findings is demonstrated. The victim was medically, physically and psychologically unfit to undertake the fatal dive. She was inexperienced and inadequately supervised. She was over-weighted and exposed for the first time to difficult currents. The analysis of the dive demonstrates how important it is to consider the interaction of all factors and to not make deductions from individual items of information. It also highlights the importance of early liaison between expert divers, technicians, diving clinicians and pathologists, if inappropriate conclusions are to be avoided.

Key words

Scuba diving, scuba accidents, diving deaths, legal and insurance, autopsy, buddies, case reports

Introduction

In October 2003, a diving fatality occurred at the site of the wreck of the *SS Yongala* off the Queensland coast, when a young woman, Tina Watson, died on her honeymoon. A police investigation extending over a nine-year period described a modus operandi for her alleged murder; at a 2007 coroner's inquest, on national television, in many news media stories, in a book and at a USA courthouse in 2012.¹⁻⁴ The victim's diving buddy, her husband, Gabe Watson, was charged with capital murder in both Australia and the USA. He had arranged a diving trip to the *SS Yongala*, where, on the eleventh day of their marriage, he allegedly killed his wife, a novice diver, in the following scenario. The motive was claimed to be financial (insurance claim, assets).

Gabe Watson was alleged to have used the ploy of a malfunctioning computer to abort the dive and separate himself and Tina from the other divers. They then joined another group for the second dive attempt. They left the descent line at about 12 metres' sea water (msw) (as did everyone else), but swam ahead of the others allegedly so that he could turn off her air supply without being noticed. After she had died or lost consciousness, he caught her in a bear-hug and turned the air supply back on. Despite his being an experienced diver with rescue qualifications, he let her sink to the bottom as he made his way leisurely to the surface. Thus, she died of asphyxia (obstruction of the air supply, suffocation) and Gabe was charged with murder. He spent 18 months in jail in Australia after a plea bargain to the lesser charge of manslaughter. A comprehensive assessment of the

legal aspects of the case is made elsewhere.⁴ In Birmingham, Alabama, the judge dismissed the charge without requiring a defence, on the grounds that the prosecution evidence was based on conjecture and speculation.

This presentation deals with the facts of the dive, based entirely on information in the public domain – the sworn witness statements and video interrogations supplied to and by the police investigators, the coroner's inquiry, analysis by the dive computer (DC) experts, the autopsy results and equipment examination by the police divers. An analysis and interpretation of the data are presented in the discussion section.

Diving experience

Gabe Watson qualified as a diver in 1998. He had made about 56 dives, mostly in still water (pool, quarry, etc.) and had little genuine open-water experience other than two wreck dives and a couple of drift dives in Cozumel, Mexico. He did a rescue course some four years before the *Yongala* dive, and this included one supervised rescue of a neutrally buoyant buddy in a still-water quarry.

Tina Watson was encouraged by her then fiancée to undertake scuba diving in 2003. She was also trained in a pool and the still-water quarry, with purpose-built dive platforms. She panicked at a shallow depth and required rescue despite the relatively innocuous conditions. A dive coordinator described her as the most ill-prepared diver he had ever seen. Other descriptions such as “*hysterical*” and “*shaking*” were

used. She possibly had made 11 dives, although only eight were recorded on her DC. The maximum water depth ever reached was 9 metres' water, with an average maximum depth of 6 metres and average dive duration of 13 minutes.

The dive

The dive, as described by Gabe Watson, Dr Stanley Stutz, Wade Singleton and other divers (validated by DC profiles from Gabe, Tina and Wade's computers), was as follows. Soon after 1000 h on 22 October 2003, the Watsons were transported on a tender to a descent line to start a dive on the wreck of the *SS Yongala*. The Watsons were last of the group to enter the water, but soon aborted their dive after a descent to 1 metre' sea water (msw), when Gabe's DC gave an alarm signal (beeps) indicating a problem with the air supply. They ascended, returned to the dive vessel and replaced the battery in the transmitter of his DC. After about 15 minutes, they had their scuba tanks topped up and the DC was working. Tina wore a small 3 mm wetsuit and carried weights of 9 kg.

Lou Johnston, who was a moderately experienced diver, an instructor and now a deckhand, had dived the area that morning. In her diary, she described the conditions and currents underwater as savage, an extremely strong current that required her to kick and breathe as hard as she could to reach the descent line. She also observed the Watsons after their first short shallow dip as they looked exhausted, "*out of breath and panicked... I was quite concerned*".

At about 1030 h the Watsons commenced to dive in a group of six divers. This time, the Watsons descended first. With Tina in the lead, she and Gabe descended slowly, hand over hand, at about 3 metres per minute, to about 12 msw. The others followed a minute later. At about 12 msw, like all the other divers and 3–4 minutes into the dive, the Watsons left the line and commenced to swim or drift along the top of the wreck, with the current. They dropped another 3–4 metres to 16 msw during the fifth minute. Gabe was not sure how far they had come, but he could barely see the people on the descent line and could not see the ascent line at all. Tina indicated to Gabe with her thumb that she wanted to return to the descent line. He stated that he was also concerned and agreed to return to the line and, thus, the safety of the dive boat.

They turned around and started swimming back to the descent line. They got some way back when it was evident that Tina was in distress, and not coping with the current. She appeared fearful, was swimming slowly and was overweighted. They were hand-in-hand, Gabe towing her below and behind him. He claimed to be swimming and breathing very hard. He indicated to her to inflate her BC, but her brief attempt at this was ineffectual and Gabe stated he was unsure whether the main problem was with her or her equipment. Tina then stopped swimming. Towards the end of the fifth

minute, trying to get back to the line and not making much headway, he was pulling her by the top of her BC and was close to her when her waving hand displaced his facemask and regulator. He then let her go, backed away to re-adjust his mask, clearing it by exhaling air through his nose, and replacing the regulator with his second or 'octopus' regulator. Later he was to observe that the mouthpiece had become detached and lost from the primary regulator.

During the time that he was replacing mask and regulator, she sank and floated away from him. He swam down about 3 metres and attempted to reach her again (probably the event clearly seen and described by Dr Stutz, who was descending down the line in the next group of divers). Gabe Watson decided to ascend to obtain assistance, as his previous, exhausting attempts to get Tina back to the line had failed. At an estimated distance of 9 metres or so from the descent line, he allegedly swam hard at a 45 degree angle to that line. When he reached it he attempted to enlist the aid of two Asian divers, but quickly realised that communication with them was not effective. He then rapidly ascended up the line, surfaced and attracted the attention of the boat crew. The ascent, as interpreted from his DC, was just over 2 minutes (later described by the police as "*a pedestrian rate*").

Meanwhile, Tina had sunk to the sea floor, about 10 metres from the wreck. No evidence of respirations was observed from the fifth minute onwards (Gabe, Stutz and Singleton). Singleton, one of the dive instructors in the group previously following Gabe and Tina, recognised the emergency and swam fast to reach Tina. She had her regulator and mask in place, her BC not inflated and there were no signs of life. On the seabed, he purged air into her from her regulator and repeated this during their rapid ascent; achieved by ditching his weights and inflating his BC. Blood was seen coming from her mouth on surfacing. Two divers, assisted and supervised by other divers who were also emergency ward physicians, conducted CPR for 40 minutes. Large quantities of froth exuded from her mouth, but there were no other signs of life. Tina was pronounced dead at 1127 h.

Equipment tests

There were no abnormalities detected by the police in the laboratory or field tests of Tina's scuba equipment, except for a minimal and insignificant increase in allowable carbon dioxide level in the tank air. Gabe's tank pressure on completion of the dive was 156 bar. Tina's tank pressure at the end of the dive was 149 bar. The small buoyancy compensator (BC) she wore would have had a total lift capacity of about 9 kg, as described in the Alabama court proceedings and based on the manufacturer's claims.

The dive computers used by Gabe (Oceanic Datatrans Plus), Tina (Oceanic Versa) and Singleton (Ultra DC) were tested by the police (in conjunction with the Townsville Hospital Hyperbaric Medicine Unit) and Chris Coxon, Queensland

Workplace, Health and Safety. Later testing was performed by Adam Lindsay White, service manager for Oceanic, Australia. As there are factually incorrect statements regarding decompression and, more specifically, the DCs in the police evidence, only the tests and analyses by Coxon and White are employed here. All DCs measured accurately the depths, durations and ascent rates of the dives.

The description of an alarm being triggered, as described by Gabe but refuted by the police, was supported by the Oceanic expert. There were 54 dives recorded on Gabe's DC. This last dive was to a maximum of 16.5 msw with a descent for the first 5 minutes and an ascent for the last 2 minutes (Figure 1). Unfortunately only 3 msw depth increments and whole minute intervals were able to be downloaded, producing a much "smoothed out" dive profile without the ability to detect smaller variations in depth or duration. At the 6 msw mark Gabe was ascending at 18–27 m min⁻¹ and his maximum recordable ascent rate was 27–36 m min⁻¹. The air consumption, (indicating the rate of air being consumed, not the total air consumed) showed 7 out of a maximum 8 bars at one stage and recorded a "maximum breathing rate".

The Oceanic Versa used by Tina was even less informative. It did not allow downloading of any detailed dive information except for maximum depths and durations. The last dive was to 27 msw for 10 minutes. The ascent rate was 5/5 bars and flashing "too fast". Two of her previous dives also indicated "too fast". The Ultra DC used by Singleton showed a descent at 1031 h, a maximum depth of 27.6 msw and duration of

9 minutes. The ascent rate alarm was activated after 8.5 minutes of the dive.

Autopsy

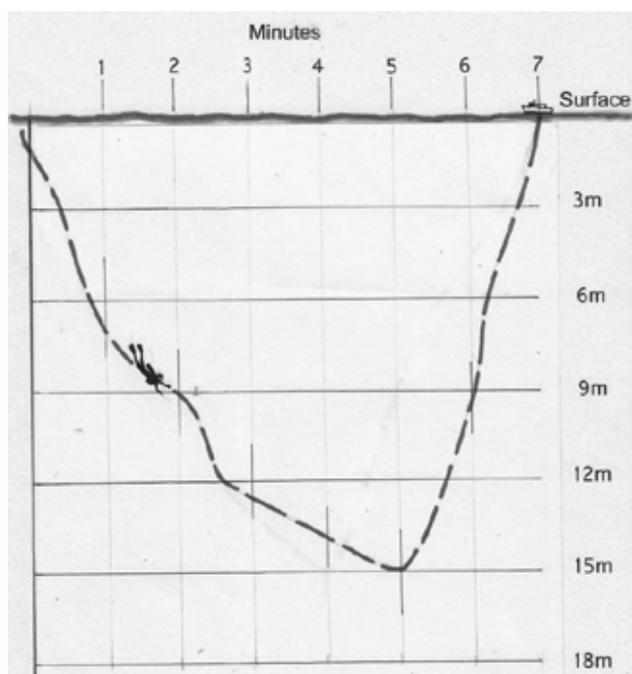
Following preservation of the body in a refrigerated morgue, post mortem CT scans taken approximately 24 hours after death showed extensive air embolism in both arterial and venous systems. This was interpreted to have occurred when there was still an active vascular circulation. It was also observed in the intra-cerebral arteries, including the Circle of Willis, but not in the cerebral veins. Gas was observed in the cervical tissues; however, neck trauma was induced during the attempted resuscitation and so may have contributed to this. There was excessive gastrointestinal gas distension and bilateral pneumothoracies. Scans also revealed mucosal thickening and polypoid opacities in the sphenoidal and other sinuses.

The lungs were oedematous (right 630 g, left 530 g), with froth in the airways and areas of congestion. Pulmonary histology showed pseudo-emphysematous areas and some haemorrhages in the alveolar spaces. There were no abnormalities of the cardiac or cerebral tissues, except for intra-vascular gas. Analysis of the extraneous gas in the body (heart, arterial system, pneumothorax, bowel, etc.) was not performed.

The cause of death was given by the forensic pathologist as drowning. The pathologist adhered to this diagnosis throughout the various proceedings, despite attempts to have it re-categorised as asphyxia.

Figure 1

A diagrammatic representation of the dive profile from Gabe Watson's dive computer



Discussion

FITNESS TO DIVE

Tina Watson's medical history showed that she had suffered from repeated bouts of symptomatic supraventricular tachycardia and was shown to have a mild myxomatous degeneration of the mitral valve as well as the arrhythmia. Radiofrequency ablation of an aberrant conduction pathway was undertaken in 2001. She had one possible episode of tachycardia post treatment, but, in general, her cardiac status was much improved.

A specialist cardiologist without training or experience in diving medicine stated under oath that this procedure was "usually curative". When asked if the disorders described, or the treatment administered, would be likely to increase the likelihood of arrhythmias under the exceptional conditions possible with scuba diving, the cardiologist replied "not necessarily", and believed that Tina was fit to dive. By contrast, a reputable Australian diving physician stated that the possibility of a cardiac arrhythmia as a cause of Tina's death could not be excluded.

Whether Tina Watson was fit to dive from a cardiac aspect would be questionable despite the cardiologist's expressed opinion. My assessment is that she was permanently medically unfit because of the many aggravating factors leading to arrhythmias in diving, the fact that she had at least one scarred and potentially irritant focus from the surgery, and the high incidence of cardiac deaths from diving. This remains conjecture. What seems less debatable is that she was not a physically competent swimmer according to her friends, and not psychologically suited to scuba diving, based on her history and the observations of others. This would be especially so under strenuous conditions. Consensus of opinion is that, whether medically fit to dive or not, she was too inexperienced to undertake the *Yongala* dive.

ENVIRONMENT

Current speed

This is relevant to a number of key issues: why the Watsons failed to regain the line, the failure of Gabe's rescue attempt, and his rate of ascent, which the police interpreted as suspicious. It also casts doubt on the relevance of the attempted re-enactments, which did not reflect this aspect of the environmental conditions at the time of the fatality. In general, for a neutrally buoyant non-expert diver 0.5 knots or less is a comfortable swim against a mild current, 0.6–1 knot is a moderate current but problematic, whilst 1 knot is a strong current, tolerable only for short distances. Inexperience, unfitness and anxiety will aggravate the problems. Drifting with the current is easy, but swimming against it is hard – causing greater anxiety and increased air consumption. Of the divers that morning, 15 out of 19 stated that the currents were moderate to severe, as did the police documentation of the incident. Other indicators supported this assessment. Divers were horizontal on the line and when they let the line go, it took strong swimming to re-attach.

Depth

With increasing depth there are greater problems with anxiety in inexperienced divers and greater buoyancy problems for divers who are overweighted. Tina Watson had previously only dived to a maximum depth of 9 metres.

BUOYANCY AND AIR CONSUMPTION

Tina's negative buoyancy

With a small 3 mm wetsuit and carrying 9 kg of weights, Tina was negatively buoyant, unless countered by inflation of her small BC. She was wearing more than twice the weight theoretically needed and twice the amount used by the other female divers on that dive. She was not seen to inflate her BC once immersed, and it was never subsequently seen to be inflated. Allowing 1 kg for a full tank, she was at least 6

kg over-weighted on the surface and more at depth. Using excessive weights is common in novice or anxious divers, to assist in descent. Her over-weighting was verified by subsequent events but would not have been a major problem until she let go of the rope at 12 metres to swim. Failure to inflate her BC is not surprising. Many novice divers do not pay adequate attention to buoyancy and do not appreciate the length of time necessary to inflate a BC at depth.

Air consumption

Calculation of Tina's air consumption (surface value) indicates almost 600 litres. Allowing for an initial usage and some loss, this equates to a respiratory minute volume of about 100 L min⁻¹. Corrected for her depth exposure, this is about 50 L min⁻¹, an exceptional air consumption for a small female. Anxiety-induced hyperventilation and exertion may explain most of this. It would be impossible to explain if the air supply had been turned off for 2 of the 5.5 minutes of the dive. Gabe's air consumption was also very high, over 500 litres (surface value) and about 40 L min⁻¹, corrected for his depth exposure. As Gabe did use his BC throughout, more accurate figures are harder to determine, but it is still a large value and would require anxiety and/or considerable exertion to explain it. In both cases, the relatively innocuous first 3 to 4 minutes of descent down the line, requiring small minute volumes, makes the air consumption in the latter part of the dive even more impressive.

THE FIFTH MINUTE

The descent in the first 3 to 4 minutes appears to have been uneventful. Both divers were over-weighted and so they would have just let themselves down slowly, attached to the line. The use of a line overcomes the effect of both the current and the over-weighting. Once they let go of the line, these factors come into play. During this fifth minute, four negative, inter-related factors had a bearing on Tina Watson's dive:

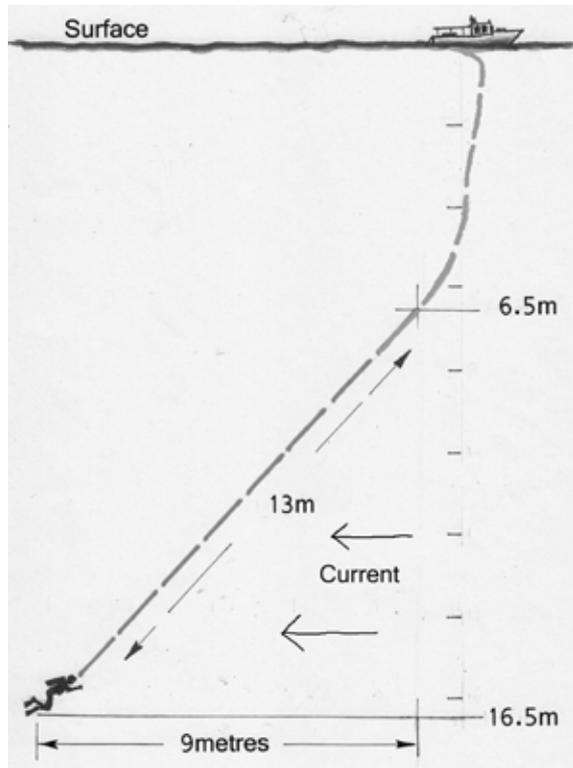
- Inexperience (at depth and against currents, swimming);
- Anxiety and panic;
- Hyperventilation, increasing resistance to breathing (over-breathing the regulator) and thereby aggravating the panic;
- Negative buoyancy, worse with depth.

During this period, Gabe Watson, who had regained neutral buoyancy, had three factors to overcome, increasing his work load:

- Tina was over-weighted (estimated at > 6 kg); this would reduce their swimming speed while he was towing her;
- She was positioned more vertically than horizontally, because of the over-weighting, thus greatly increasing the effect of drag;
- Swimming against a moderate/strong current.

Figure 2

A diagrammatic representation of Gabe Watson's projected deep ascent from 16.5 to 6.5 msw, swimming at a 45 degree angle against the current, then his shallow ascent direct to the surface up the 'descent' line



THE FIFTH TO SEVENTH MINUTE: GABE'S ASCENT

Gabe claimed a hurried and energetic dash to get help for Tina. His claims were inconsistent with the police interpretation but, because of the limitations of the DC, the ascent time could be variously interpreted as less than or greater than 2 minutes. At a depth of at least 16 msw, and a distance of 9 metres from the line, Gabe ascended at a 45 degree angle. This means that he covered a distance of approx 13 metres before he reached the line. He still had 6.7 metres to ascend up the line. Thus there are two parts to his ascent (Figure 2).

Shallow phase (6.7 metres to the surface)

Once he reached the line, Gabe could pull himself up with his hands, free of any effect from the current. The DC showed a very rapid ascent over these final 6 metres. At 18 msw min⁻¹, it would take 20 sec. At 36 msw min⁻¹ it would take 10 sec. The actual time was probably somewhere in between. That still leaves about 2 minutes for the deep phase.

Deep phase (from at least 16 to 6.7 metres' depth)

The duration of the deep phase was approximately 2 minutes. Consider the two extremes of moderate and strong currents.

If we consider a strong current, then at a speed of 1.2 knots, this is 37 m min⁻¹. He would have to swim the equivalent of 74 metres just to remain in the same place. If we consider a moderate current, then at a speed of 0.6 knots, this is 18.5 m min⁻¹. He would have to swim the equivalent of 37 metres just to remain in the same place. To these distances, one must add the extra distance covered during ascent, i.e., 13 metres. The total equates to 87 metres (strong current) and 50 metres (moderate current). Over 2 minutes, this requires swim speeds of 43.5 m min⁻¹ and 25 m min⁻¹ respectively. Time to attempt communication with the Asian divers also needs to be factored in, making the above an underestimate.

Conclusion

These calculated swim speeds vary from fast to very fast in full scuba gear; the actual speed would likely be somewhere between. By comparison, Singleton's ascent rate, but at risk to both his and the victim's life, was about 18 m min⁻¹, and he had extra buoyancy to assist him. Watson's critics presumably assumed that his 2+ minute ascent time was a direct, vertical swim to the surface, without consideration of the current, both of which assumptions we know to be incorrect.

CAUSE OF DEATH

There is little reason to question the autopsy findings of drowning and of extensive air embolism. However, some controversies do arise and warrant discussion and explanation. The gross sinus pathology, which was the focus of some confusion, usually indicates barotrauma of descent whilst unconscious but with a functioning circulation, i.e., whilst the diver is still alive.

Drowning or asphyxia?

Asphyxia was a term frequently used during the legal proceedings (and with legal connotations) by both the police and prosecution. It was used without adequate definition. In forensic circles, it usually implies suffocation, i.e., a cessation of air supply (hanging, upper respiratory tract obstruction, laryngospasm, turning off an air supply, etc). This results in a buildup of carbon dioxide and a struggle to re-establish the air supply. Loss of consciousness results from progressive hypoxia after a couple of distressing minutes, then death. At depth, this would take longer, as the available oxygen in the lungs is greater than at the surface.

Hypoxia from aspiration of water in the drowning syndromes is due to shunting of blood through non-ventilated sections of the lungs, often with increasing ventilation to reduce the carbon dioxide build-up. Struggling may be present during this process, but often it is either ineffectual or absent (termed 'silent drowning'). The duration prior to loss of consciousness depends on the degree and type of aspiration.

The pathologist adhered to his diagnosis of drowning in both the Australian and USA trials, despite attempts to have it re-categorised as asphyxia by both the police and prosecution. This was rejected by the USA court judge, who correctly adhered to the pathologist's diagnosis of drowning. The lung weights, morphology and histology were characteristic of drowning, not simple asphyxia.

Post-mortem gas

Interpretation of the presence of gas at autopsy in diving deaths is best demonstrated by CT or MRI scans of the body, but is sometimes contentious for several reasons, as follows.

- Although uncommon, death can occur from decompression sickness, with gas bubbles developing within any tissue. This is classically seen as *cutis marmoratus* in the skin, but subcutaneous tissues and organs can also be involved, as can the venous system and the right heart. The diagnostic sign is a tissue reaction or inflammation around the gas bubbles. This is not described in this case.
- Decompression artifact because of off-gassing (mainly inert gas) post-mortem, is seen when divers die underwater or in pressure chambers and are then brought to the surface. From deep and prolonged dives, it can produce extensive surgical emphysema and replace blood from vessels ('gas angiograms') and the heart. The CT scan should extend to the thighs, so that the tell-tail signs of post-mortem decompression artifact may also be seen as gas in the intra-muscular fascial layers. In this case, the brief period (5–10 minutes at an average depth of 15 msw) will produce little or no off-gassing and this would have been even more diminished by 40 minutes of oxygen-based resuscitation.
- Putrefaction (decomposition) is evident after about 24 hours if the body is not refrigerated, and produces a foul-smelling gas initially in the gastro-intestinal tract, the portal veins and liver. Both hydrogen sulphide and methane may be present.
- Drowning often results in the swallowing of air and water into the gastro-intestinal tract, explaining the tendency of near-drowning victims to vomit. The gas is mainly nitrogen and oxygen, as in air. This aetiology is relevant to this case, but incidental to the cause of death.
- Air embolism following pulmonary barotrauma. This is mainly observed in the arterial system and the left heart. Continuation of life, and circulation, including effective resuscitation efforts, may result in some air (nitrogen/oxygen) bubbles moving to the venous system, the right heart and the pulmonary filter – but arterial bubbles may persist, especially in small arteries, such as the Circle of Willis, supporting the diagnosis.
- Resuscitation itself may result in a few small venous bubbles with rare instances of arterialization of these through right-to-left cardiac shunts.

Unfortunately analysis of the extraneous gas in the body was not performed in this case.

AIR EMBOLISM FROM PULMONARY BAROTRAUMA

In this case, air filled the left side of the heart and there were widespread 'gas arteriograms' seen on CT scan, as well as in the venous system. Support for the diagnosis of pulmonary barotrauma included the history of rapid ascent, purging of air into the lungs during ascent, bilateral pneumothoracies, cervical surgical emphysema, gas in the arterial system and haemoptysis on surfacing.

RESCUE/RESUSCITATION

Nine years after Tina's death, and with no urgency to make decisions, it is clear that the ideal way to have rescued Tina, for both Gabe and Wade, would have been for them to ditch Tina's weights and ascend at a moderate speed to the surface. This ignores the problems of ditching weights if one is not cognisant of the specific equipment, and the possibility of surfacing too far from the dive boat.

Gabe did desert his wife after 5 minutes. To reach a safety line and then surface, he had to swim extremely hard against a moderate to strong current. He was unable to tow her with her negative buoyancy and the drag of her body. He was not confident of what to do if he went with her to the bottom, or if he managed to achieve an ascent away from the boats. He decided to ascend and enlist the assistance of others. His DC and his estimated air consumption validate his description of events, and his ascent rate was fully comparable to the direct ascent by Singleton. Gabe attempted to rescue Tina by getting her to the descent line. If he had succeeded in this, it is at least possible that she could have been surfaced and resuscitated from a near-drowning episode. Letting her sink increased the likelihood of drowning.

Singleton took Tina rapidly to the surface and inadvertently caused the pulmonary barotrauma, from the rapid ascent and the positive inspiratory pressures generated by purging air into her lungs from the regulator. The subsequent extensive air embolism guaranteed resuscitation would be impossible without a recompression chamber. Both Gabe and Wade did their best to rescue Tina; neither succeeded.

Conclusions

Tina Watson suffered the two most common causes of death in young scuba divers, drowning and air embolism from pulmonary barotrauma. She had most of the contributing causes for these. She was medically, physically and psychologically unsuited for the dive she undertook. She was inexperienced, doing the deepest dive she had ever attempted, her first dive in open water and against currents she had never encountered previously. She was overweighted and without adequate supervision. She panicked,

was probably exhausted and over-breathed her regulator, aspirated water, became hypoxic, lost consciousness and finally drowned. This was complicated by bursting her lungs during a rapid emergency ascent. The death was a tragic, but preventable accident.

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Conflict of interest

In June, 2011, Dr Edmonds was asked by the authors of *The Honeymoon Dive* to analyse the evidence for their explanations

of this diving death. He was supplied with all the police documentation (including original witness statements, subsequent video interviews, police investigations and reports), forensic reports and the Australian inquest proceedings. The ABC documentary *Unfathomable, parts 1 and 2*, were also made available.

Following his assessment, the attorneys for the defence of Gabe Watson requested the court that Dr Edmonds be summoned to the court proceedings in Birmingham, Alabama, in 2012 as an expert witness. The court approved and financed this transport, but the case was thrown out of court before he or any other defence witnesses were called, based on the absence of plausible evidence supplied by the prosecution. At no stage did Dr Edmonds communicate with the accused or the accusers in this case.

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