



VICTORIAN INSTITUTE OF FORENSIC MEDICINE

OPINION REPORT

**PAUL RATH
CASE NO. A00180/22**

My name is Linda Elizabeth ILES and my professional address is the Victorian Institute of Forensic Medicine, 65 Kavanagh Street, Southbank, Victoria 3006.

I am a registered medical practitioner practising as a specialist in forensic pathology.

My qualifications are Bachelor of Medicine (MB), Bachelor of Medical Science (B Med Sci) and Bachelor of Surgery (BS) with Honours, from the University of Tasmania. I am a Fellow of the Royal College of Pathologists of Australasia by examination in anatomical pathology. I hold the Diploma in Medical Jurisprudence in Pathology from the Society of Apothecaries of London (DMJ (Path)), and am a founding fellow of the Faculty of Post Mortem Imaging of the Royal College of Pathologists of Australasia.

I am employed as a Forensic Pathologist at the Victorian Institute of Forensic Medicine.

My practical experience in Forensic Pathology commenced in 2000. I commenced full time professional forensic pathology practice in Victoria in 2005. I was subsequently employed as a Consultant Forensic Pathologist in the Section of Forensic Medicine and Science at the University of Glasgow from March 2007 until January 2009 and received specialised training in Forensic Neuropathology at the University of Edinburgh. I resumed practicing forensic pathology in Victoria in July 2009.

I am head of Forensic Pathology Services at the Victorian Institute of Forensic Medicine and co-ordinate the Institute's neuropathology service.

65 Kavanagh Street
Southbank VIC 3006
Australia
ABN 15 887 032 583

T +61 3 9684 4444
F +61 3 9682 7353
vifm.org



OPINION REPORT

Case No. A00180/22

Re : RATH deceased

Materials considered in compiling opinion report

- Forensic biology report
- Toxicology report
- Autopsy report
- Inquest findings
- Transcript extract of inquest
- Death certificate
- Scene photographs (x5)
- Copy of handwritten note
- P109 report of occurrence
- Statement of Constable Ross Parry
- Statement of Dr O Reichard
- Statement of Elywn Walter Rath
- Deposition of Elywn Walter Rath at inquest
- Statement of Gregory John Rath
- Statement of Alfred Barrett

SYNOPSIS OF MATERIALS

1. The body of Mr Paul Edward Rath, age 27 years, was found at the rocks at the foot of a cliff at Fairy Bower, Manly, New South Wales on 16 June 1977. The deceased was described as being wedged between rocks in a sitting position at the foot of a 150 foot ledge. No signs of a struggle were reportedly identified.
2. Mr Rath was last reportedly seen alive at 5 pm on 15 June 1977.
3. Mr Rath was under the care of a psychiatrist for what was reported as “nervous condition”, also diagnosed as a schizophrenic disorder, and treated with antipsychotic medication haloperidol and thioridazine (Mellaril). Mr Rath reportedly frequently walked in the Fairy Bower area.

4. Black and white scene photographs demonstrate the deceased located in a crouched position with dark staining of the trouser legs and jacket sleeves, dark staining on the shirt sleeve and on the back of the jacket. Stains have a mixed smeared and round/droplet-like appearances. Mr Rath's trousers are observed to be approximately one-third of the way down his thigh on the left.
5. Scene photographs also demonstrate features suggestive of injuries to the fingers of the left hand and right index finger.
6. Biological investigations demonstrated semen detected on a penile swab; an anal swab was reportedly negative for semen.
7. Toxicological studies performed on blood did not demonstrate the presence of alcohol. No further testing was undertaken.
8. Autopsy examination was conducted by Dr Peter Russell on 18/06/1977. The deceased weighed 82 kg and measured 170 cm in height (BMI 28.4).
9. Anterior lividity was documented as well as the presence of rigor mortis.
10. Injuries were documented as follows:
 - a. Bruising with oedema about the right eye and cheek.
 - b. "Old blood" issuing from the nostrils.
 - c. Small amount of blood within the right ear (described as passive).
 - d. Bruising to the right upper arm.
 - e. Bilateral comminuted lower end tibia and fibula fractures.
 - f. Extensive bruising about the anterior chest wall.
 - g. Sternal fractures and fractures to the right 4th – 6th ribs adjacent to the costochondral junction.
 - h. Larynx reportedly uninjured.

- i. Lungs and heart reportedly uninjured with no haemorrhage within the pleural cavities.
- j. Liver and spleen reportedly uninjured with no intraperitoneal or retroperitoneal haemorrhage documented.
- k. C7 and L1 fractures, both with dislocation.
- l. Yellow staining of the periosteum of the skull (inner table).
- m. No reported scalp bruising, skull fracture or brain injury.

11. The cause of death was given as “multiple injuries”.

QUESTIONS AND REPONSES

Q1a. Additional areas of medical investigations or expert opinion considered to be of assistance in relation to injuries and cause of death?

Whilst a clinical opinion around capacity given the Mr Rath’s documented spinal injuries could be sought, given the uncertainties around the presence of other injuries, and autopsy findings that would suggest a short survival time post impact, this is unlikely to be of great assistance.

Q1b. If relevant, appropriate expert for whom his honour may wish to seek further expert opinion.

It is recommended that opinion be sought from an experienced forensic biologist regarding the pattern of staining observable on the deceased’s clothing in the series of scene photographs.

Q2. View as to the adequacy of the post mortem investigations conducted with respect to Mr Rath

It is recognised that there have been substantial changes to autopsy practice in the decades since Mr Rath’s death. However, for the purposes of review, in particular, for the purposes of attempting to determine the mechanism(s) behind Mr Rath’s death, some deficiencies are identified as follows:

1. External examination:

- i. No description of Mr Rath's clothing is documented. There is extensive staining of his clothing, some of which may be blood, which appears to be out of keeping with the circumstances as known/described.
- ii. Description of external injuries is limited to the description of bruising and oedema about the right eye and cheek and extensive bruising to the chest wall. It is not clear what is meant by "old blood" issuing from the nostrils. How the age of this blood is determined is unclear. There is no indication in the report as to the origin of the passive blood identified in the right ear.
- iii. Scene photographs suggest injuries to the fingers of both hands; this is not documented in the autopsy report.
- iv. There is no description of cutaneous injuries to the lower legs; absence of such is unusual given the extensive comminuted fractures described.
- v. There is bruising described about the right upper arm, however the specific location of this bruising, which may be relevant, is not disclosed.
- vi. Given that the deceased is found with his trousers around his thighs, there is no description of the presence or absence of anogenital injuries, beyond the comment that the bladder and genitalia showed no unusual features.

2. Internal examination:

- i. There is no documentation of the presence or absence of scalp bruising.
- ii. Based on the report, the most significant injury appears to be related to C7 and L1 fracture dislocations; there is no comment regarding associated spinal injury (i.e. whether these injuries are associated with cord transection or significant compression; see below).

3. Toxicology:

- i. Given the deceased was prescribed two antipsychotic medications which may cause sedation, toxicological analysis for drugs other than alcohol would be advisable.

Accurate external and internal descriptions (ideally photo documented), which include relevant negative observations, are required in order to correlate injury patterns with scene findings. When this data is available, one is more able to test propositions around injury causation and event reconstruction.

Q3. *View as to medical cause of Mr Rath's death. Regarding Mr Rath's distinctive body position, whether this is a cause of suspicion.*

There are several scenarios that may account for the positioning of Mr Rath's body:

- i. It was placed in this position by persons unknown. This would appear extremely unlikely given that Mr Rath does have injuries in keeping with a fall from a height, and access to this particular site appears to be difficult.
- ii. Mr Rath landed directly in this position after falling from the clifftop. Mr Rath's injuries are in keeping with him landing on his feet following a fall from a height. It is not clear to me from the available photographs if the topography of the area allows for this possibility.
- iii. Mr Rath landed further up the rocky embankment or on the above grassy area (noted as a possibility as per Commission investigators) and tumbled to this final resting position. In this scenario, Mr Rath's body positioning is not in itself cause for suspicion.
- iv. Mr Rath landed further up the rocky embankment or on the above grassy area and moved himself to his final resting position. Based on Mr Rath's documented injuries, this would appear unlikely (see below).

Q3b. *Mr Rath's spinal injuries and whether it is possible that Mr Rath survived the initial fall for a period of time and was capable of moving his body to its final position.*

If the remainder of the post mortem report is accurate, spinal injuries appear to be the cause of Mr Rath's death, given the absence of any documented head injury (other than facial bruising), or intracavitary haemorrhage. On the material available to me, there is no suggestion that Mr Rath drowned after becoming wedged. I am however unfamiliar with the peculiarities of the scene and tidal shifts in this the area, thus cause of death would need to be reviewed if this data indicated immersion as a possibility.

The autopsy report documents C7 and L1 fractures “with considerable dislocation”. The inference of this observation is that these fractures are association with complete spinal cord injury as these levels. If this were not the case, there are no other recorded findings to account for Mr Rath’s death.

Based on these observations, the mechanism for Mr Rath’s death is neurogenic shock. Neurogenic shock results in hypotension and bradycardia in the setting of a high spinal cord injury. Asphyxia due to poor head and neck control is likely if the injury to the cord occurred at the C7 level.

An injury located at the C7 level, in theory would leave the deceased with control of their head and neck, a degree of muscular control of the shoulders, elbows and wrists. There would however be loss of function of the lower limbs.

It should be noted however that this mechanism of the death is based on autopsy data that is suboptimal and incomplete. A higher cord injury is entirely possible. Conclusions above are based on the assumptions that significant C7 cord injury has occurred, and that no other cause of death was identified at autopsy. Based on this assumption, Mr Rath may potentially have had some control of his upper limbs and head and neck, however no control of his lower limbs. The latter combined with bilateral comminuted tibial and fibular fractures would in my view make it extremely unlikely that Mr Rath was capable of moving himself any considerable distance from his position following impact. The lack of any *described* intracavitary haemorrhage associated with C7 and L1 fracture/dislocations suggests that death was rapid in onset.

Are there other reasonable causes of death, or injuries, that may have been overlooked, based on what is documented?

The presence of sternal and rib fractures, in association with chest bruising, have been documented. These chest injuries can be associated with pneumothorax. Unless the chest dissection is approached in a particular manner at autopsy, this may be overlooked. A high(er) cervical spinal cord injury, and craniocervical dislocation, may also not be identified without being specifically sought at autopsy.

It is possible that the spinal and lower limb injuries observed at autopsy are post mortem injuries (i.e. Mr Rath was dead prior to fall from the clifftop?).

This possibility has been considered given the lack of any documented intracavitary haemorrhage or documented haemorrhage around the spinal column. However, autopsy examination does not document anything that could be considered an alternative cause of death.

Q3c. *The extensive fracturing to Mr Rath's lower legs.*

Autopsy examination documents bilateral comminuted tibial and fibular fractures. This is in keeping with injuries sustained from a fall from a height, with primary impact/axial forces being directed through the feet. In this setting, the absence of pelvic and/or sacroiliac joint injuries is surprising. These skeletal injuries may be overlooked if not specifically sought at autopsy.

Q3d. *The "peculiar yellow staining of the internal periosteum" of the skull.*

Yellow staining of the inner table of the skull is likely due to historical (past) use of tetracycline class antibiotics. This is a well described phenomenon.

Q4. *View as to the blood found on Mr Rath's clothing (including the extensive areas of blood on the lower half of his trousers and spots of blood on the outside surface of his jacket). Is there any cause for suspicion arising from the location of this blood?*

It is noted that these are black and white photographs, and the staining observed in the photographs is likely blood, dirt, or a combination of the above. The staining of Mr Rath's clothing, in my view, particularly if the staining is due to blood, is the most concerning element of the materials under review. It is out of keeping with the scene and circumstances as described, along with autopsy findings as documented. As above, it is strongly recommended that these photographs be reviewed by a forensic biologist.

Q5. *View as to the significance if any of the presence of semen in the penile swab and smear. Are you able to estimate the likely time period of its presence?*

Emission of semen after death is a relatively common post mortem phenomenon. The detection of semen from a penile swab at autopsy (unless it is clearly demonstrated via DNA analysis to come from another individual) should not be interpreted as evidence of recent sexual activity.

Q6. *Injuries in terms of mechanism of death:*

a. *Old blood issuing from Mr Rath's nostrils and a small amount of blood present in the right ear.*

The autopsy report describes "old blood" issuing from the nostrils. Dried blood cannot be aged on the skin, thus this terminology is curious. This may represent dried blood secondary to facial injuries sustained in the fall. It may be present due to facial injuries sustained prior to the fall.

"Passive blood" is documented in the right ear, i.e. blood that has pooled in the ear under the influence of gravity, not due to a localised injury such as base of skull fracture. Scene photographs show Mr Rath in a head down position, indicating that it cannot have occurred as a result of blood issuing from the nose around the time of/shortly following death. However, if blood or purged fluid has issued from the mouth or nose during body movement and transport, this could pool around the right earlobe/external auditory canal. Unfortunately, no source for this blood is specifically outlined by the autopsy pathologist.

6b. *The bruising to Mr Rath's right eye and cheek, right upper arm and anterior chest wall.*

These injuries could be sustained during a fall (particularly if the mechanics of a fall entail "secondary" impacts occurring in addition to the primary impact) or may represent pre-existing blunt force injuries. The likelihood of either of these propositions cannot be determined on the available material. Bruising in protected sites (for example, the inner aspects of the upper arms) in some situations may raise the possibility of blunt trauma sustained via another mechanism other than a fall, however the location of the right upper arm bruising is not specified in the autopsy report.

6c. *The position of Mr Rath's trousers when his body was found.*

There are no recorded observations around whether the trousers were fastened or zippered, or whether they were tightly fitting or loose fitting. Loose fitting trousers could descend during tumbling or crawling (although the latter is considered highly unlikely given the documented spinal injury). Due to incomplete examination, it is difficult to determine the significance of the position of Mr Rath's trousers. However, on first principles, the trousers located in this position should be a prompt for a more thorough

examination at the scene and at autopsy. This may have been the prompt for penile and anal swabbing. It is not clear whether the pathologist was aware of the position of the deceased's trousers at the scene or the pattern of staining on the deceased's clothing. There is no documented detailed anogenital examination at autopsy.

6d. Other.

As above, the absence of documentation about the location of the bruising to the right upper arm does not allow the significance of this bruising to be interpreted. Scene photographs appear to demonstrate injuries to the fingers, particularly of the left hand.

Whilst a spectrum of injuries can be sustained during primary impact or secondary tumbling, the lack of any significant description of these injuries limits meaningful comment.

Q7. Commentary regarding the likely cause of Mr Rath's death.

Based on the information available to me, a reasonable cause of death would be:

1(a) Spinal injuries sustained in a fall from a height.

Please note, *a fall from a height* does not imply specific manner or mechanism of fall i.e. whether the fall is due to accident, suicide or homicide, is not inferred in this cause of death.

Most often, the manner of death in relation to a fatal fall from a height is based on combination of scene examination findings and circumstantial information¹. Autopsy examination can indicate whether injuries are in keeping with a fall from a height (in this instance the injuries documented are in keeping with a fall from a height). However careful examination may disclose injuries in locations that may raise concerns around injuries sustained prior to a fall (e.g. inflicted injuries). In this instance, the description of external injuries is inadequate. In addition, the staining to Mr Rath's clothing, particularly if the staining represents blood, appears to be out of keeping with the circumstances as described and the limitations of movement of the deceased implicit with a complete lower cervical spinal cord injury and bilateral lower limb fractures.

Reference

1. Turk E, Tsokos M. Pathological features of fatal falls from a height. *Am J Forensic Med Pathol* 2004, 25:194-199.

I, Dr Linda Iles, acknowledge for the purpose of Rule 31.23 of the Uniform Civil Procedure Rules 2005 that I have read the Expert Witness Code of Conduct in Schedule 7 to the said rules and agree to be bound by it.

I hereby acknowledge that this statement is true and correct and I make it in the belief that a person making a false statement in the circumstances is liable to penalties of perjury.

A handwritten signature in cursive script, appearing to read "Linda", enclosed within a thin black rectangular border.

Linda E. Iles
B Med Sci, MB BS (Hons), FRCPA, DMJ (Path), FFPMI (RCPA)
Forensic Pathologist
Head of Forensic Pathology
Victorian Institute of Forensic Medicine