

## SUPPLEMENTARY MEDICO-LEGAL REPORT 2

09<sup>th</sup> August 2017

[My reference: P5 (2017)]

### A: CASE DETAILS

1. Death of Ahmed Essop Timol (Date of death: 27<sup>th</sup> October 1971)

### B: INSTRUCTIONS

2. My instructions were:
  - a. to submit my opinion as to whether it could have been possible, and how likely would it be, that the deceased could have fallen and died in the earlier hours of the same day of death rather than at the later afternoon as was found at the original inquest;
  - b. to further analyse in greater detail the head injury; and
  - c. to concisely summarise my medical conclusions.

### C: TIME OF DEATH

3. It is appropriate to briefly advise on the extent and limits of medical science in determining the time of death. The following reputable statement by Goff ML (2010) applies in such cases: "When faced with the task of estimating a period of time since death, there are generally two known points existing for the worker: the time at which the body was discovered and the last time the individual was reliably known to be alive. The death occurred between these two points and the aim is to estimate when it most probably took place. This will be an estimate since, it is

generally accepted that there is actually no scientific way to precisely determine the exact period of time since death”.<sup>1</sup>

4. It must be asserted that neither the medical findings in the autopsy report of Dr Schepers, nor the observations of the witnesses Mr Roderigues and Adv Mathis, provide the kind of detail for any scientific methodology to be employed for determining the precise time of death, or be able to differentiate between death at mid-morning or at later afternoon of the same day. (The autopsy report by Dr Schepers does not describe any post-mortem changes - see paragraph 3 in its “schedule of observations”).
5. In view of the minimal information provided by the autopsy report and the witnesses above, it is difficult to clearly establish with any degree of precision the time of death. Thus, it is possible that the deceased could have fallen and died at mid-morning as much as it is possible that he could have fallen and died at mid-afternoon.
6. The basis for the acceptable determination of the credible time of death would have come from a forensic body examination at the scene when the body was discovered after the fall, and it is not known whether this was in fact done. However, a short statement by Dr V D Kemp, then District Surgeon for Johannesburg, of which I have had sight, will have relevance and certain inferences may be made, discussed below.
7. Dr Kemp stated that he was requested at 15h55 to attend the scene of death, and arrived at 16h05 at the JV Square building. He examined the body which was pointed out to him on the 9<sup>th</sup> floor of the building. Dr Kemp declares in his statement declaration in Afrikaans: “*Waar die liggaam van n indierman aan my uitgewys was. Met ondersoek het ek vasgestel dat hy reeds dood was. Hy was pas dood.*”. This is translated to read: “Where the body of an Indian man was pointed

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<sup>1</sup> Goff ML Early Postmortem Changes and Stages of Decomposition, Chapter 1, page 6, in J. Amendt et al. (eds.), *Current Concepts in Forensic Entomology*, DOI 10.1007/978-1-4020-9684-6\_1, © Springer Science + Business Media B.V. 2010

to me. With investigation, I found that he was already dead. He was just dead.” This was the total extent of Dr Kemp’s statement<sup>2</sup>. It is unknown whether there could have been another full scene/body examination report by Dr Kemp or whether he testified on this aspect at the original inquest.

8. The implications from the words used by Dr Kemp in his statement are that the body was *already* dead prior to his arrival, and that the body was *recently* dead. To make the finding above, Dr Kemp might have seen certain changes after death, as described in 10 b below.
9. The determination of the post-mortem interval (PMI) is made from observations of mainly the early post-mortem changes (see below), and which are what by training, practice and habit, a forensic medical death scene examiner, whether district surgeon (as called in the earlier days) or forensic pathologist, would ordinarily for this purpose look for at the scene of a death— see footnote below<sup>3</sup>.
10. It is conventional to describe the changes/ signs of death as being in the stages below:
  - a. Immediate changes, that set in instantly on death, including principally the cessations of respiration and circulation, primary muscular flaccidity (immediate muscular floppiness), and neural non-responsiveness. These occur in all deaths, and confirmation of their non-detection amounts to the

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<sup>2</sup> Note: Kemp’s statement could well have been a standard death declaration/certification alone, as usually required to be done by a paramedic or a doctor at any death.

<sup>3</sup> The objectives of an examination at the scene of death include, inter alia: a careful examination and recording of the body appearances and any post-mortem changes and its injuries (or the lack of them), a set of procedures to determine the body core temperature, determination of the post-mortem interval (PMI), and collecting those facts on the scene which would help establish the circumstances, nature, mechanism/s and cause of death; this would include the condition and soiling of the clothing, bloodstain patterns, scene photography and other paraphernalia of relevance. A detailed scene report is to be generated.

criteria used to determine that a person has died. This “certification” of death (declaration or pronouncement of death) is usually done routinely by paramedics and emergency medical staff at most scenes of death.

- b. Early post-mortem changes, that are observed from between about half-an-hour to around 24 hours onwards (and up to 36, 48, 72 or more hours depending upon factors such as climate, temperature, environment, etc.), are the best used parameters to determine the time of death in the early post-mortem interval, and include:
- i. the progressive drop in body (core) temperature until it reaches that of the surroundings (*algor mortis*): the core/internal temperature is measured by thermometer and computed into calculations or plotted on established tables or graphs to arrive at an estimate;
  - ii. the gravitational passive pooling of the blood in blood vessels in the dependent (lower) portions of the body and seen (best so in lighter-skinned individuals) as pink/red/purplish blotches (*livor mortis*, or *lividity*, or *hypostasis*) on the skin: this is first seen by naked eye as early as <sup>half</sup> an hour, with full development in 3-4 hours, and persists to fixation in the skin at 9-12 hours; and
  - iii. the stiffening of the muscles (*rigor mortis*) - first observed in 2-6 hours, develops to a maximum in about 12 hours, and persists up to between 24 and 84 hours, after which muscle rigidity breaks down to a secondary flaccidity.
- c. Late and advanced post-mortem changes are those that include mainly the multiple, varied, continuous and progressive alterations of the body by the onset of putrefactive decomposition (“decaying”) by bacterial activity. These can begin as early as around 18-24 hours (subtle features observed) or more at about from 36 hours onwards (more obvious features).

11. Most authoritative texts (two of many examples are cited below<sup>45</sup>) are in general agreement with the stages of post-mortem changes in the descriptions in 10 a, b and c above, and on the approximate time of occurrence of these changes.
12. Dr Kemp does not, in his minimalist report, describe any of the above post-mortem features described in 10 a, b, or c. It is thus impossible to state what specific post-mortem stage the body was at.
13. In interpreting Dr Kemp's statement on the "*pas dood*" state, this suggests that he might have made certain observations to arrive at this conclusion, to make the finding that the deceased had *recently died*, and these observations must likely be the early post-mortem changes of rigor, livor and algor mortis (as in para 10 b above). It is less likely that a district surgeon would have examined the body to elicit the immediate changes of death (as in 10 a above), to simply declare death, as would a paramedic/emergency physician do.
14. "*Recently died*" thus could be interpreted, from the changes in 10 b above, that the body could have been dead for anything between half-an-hour to many hours or longer, but in my opinion generally within approximately about 24-hours in the context of this case (local climate, etc. considered).
15. If Dr Kemp's statement was the only record of his full scene examination attention, the examination must be considered unsatisfactorily and ineffectively conducted; if it had been more comprehensively done, it was then inadequately reported. To my knowledge there is no other substantive documentation to suggest otherwise.
16. Had a such structured and optimal scene examination record been available, even if done at the early 1970s, including the measurement of the core body temperature, it would have been possible to state the post-mortem interval *within a range in time but with correctness within that range*, and at least be able to strongly

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<sup>4</sup> Goff, ML - See 1 above

<sup>5</sup> Saukko P and Knight B. Knight's Forensic Pathology 3<sup>rd</sup> Edition (2004): Hodder Arnold, London: Chapter 1, page 55-60

differentiate between a body that had been dead for under an hour or between 3-8 hours, or greater than 8 hours, or greater than 36 hours, based on commonly-accepted parameters<sup>6</sup>.

**D: DETAILED ANALYSIS OF HEAD INJURY**

17. I had briefly addressed the head injury in my previous report and in testimony, but discuss this further below.
18. The left parietal depressed fracture of skull (without an open scalp wound) is clearly unexplained by the mechanics of the fall and ground impact. I address this fracture as well as the left occipital (back of head) bruising together below; indeed, there is a possibility that these two were effects of the same impact on the cranium, as the two regions (parietal and occipital) are adjacent to each other and often overlap in the descriptions used by doctors.
- a. Had there been the possibility of a window-pane opened and projecting out of the building side profile and had the head struck the window edge on the body descent, it should be expected that there would have been other consequences (the window is steel framed and with a relatively narrow profile):
- i. If the opened window-pane had been at a high-ish floor level below the floor from which he fell, I would expect that the fracture would have caved in (depressed or an open wound of the head) with a large open laceration and the body would have been set into a rotation towards the ground.
  - ii. If the opened window-pane was at a lower floor level, I would have expected that (with greater velocity of fall) the head at this position and impact force would have been deeply “impaled” by the narrow

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<sup>6</sup> Saukko P and Knight B. Knight's Forensic Pathology 3<sup>rd</sup> Edition (2004): Hodder Arnold, London: Chapter 1, page 60-61: this deals with a “spot test” used as a crude practical estimate ‘on the spot’ but is in my (Dr Steve Naidoo’s) opinion very appropriate and has proved valuable in my attendance at death scenes in that it was accurate, although not precise, when compared to more elaborate methodology.

metal frame such that it would have more likely “cleaved” into the cranium with a severely deep, gaping and destructive wound.

- b. In both the above instances (and in any variance of scenario between them), I would have expected an additional open wound (laceration) of the scalp to have been described at the autopsy.
  - c. Additionally, impacts at diametrically-opposite sides of the head (forehead versus left parietal fracture/left occipital bruise) cannot occur from the one fall because the body (and head) does not bounce about on impact such as a football will do, but drop more like what a sack of potatoes will do (remain in the position and profile of its impact).
  - d. Thus, the depressed skull fracture and occipital bruising remain fully unexplained by the fall from the building.
19. I am unable to explain why the depressed fracture was not described as being accompanied by a contusion (bruise) of the brain at the fracture position. Some elementary explanations could include:
- a. a simple failure of documentation by the original pathologist;
  - b. OR, an obfuscation or clouding of observation of such bruising, if present, by the greater bleeding around the brain.
20. Further plausible explanations of this, based on the forensic anatomy or biology of the cranium, require explanation as provided in the following paragraphs, after a few definitions (with the help of the diagram) below:
- a. *Coup* lesions of the brain are defined as bruises/haemorrhages on the same side and immediately under the impact/blow to the skull, and are seen mainly in the fixed immobile head that is struck; if the head is moving this bruise will be mild or faintly seen.

- b. *Contre-coup* lesions are seen on the opposite side of the impact due to the brain-lag phenomenon if the head is in motion before or after the impact. The bruises in an impact on the back of the head are typically seen at the frontal poles. This is <sup>NOT</sup> seen in impacts where the head is fixed and remains immobile when struck.
- c. *Gliding* lesions are bruises/haemorrhages of the base of the brain seen also in the moving head on impact where the fragile brain surface bruises as it crushes the uneven and corrugated surface of the inside of the base of skull. The bruises are seen at the inferior surfaces of the frontal and temporal lobes. It is most classically seen in impacts at the back of the head. See diagrams below.

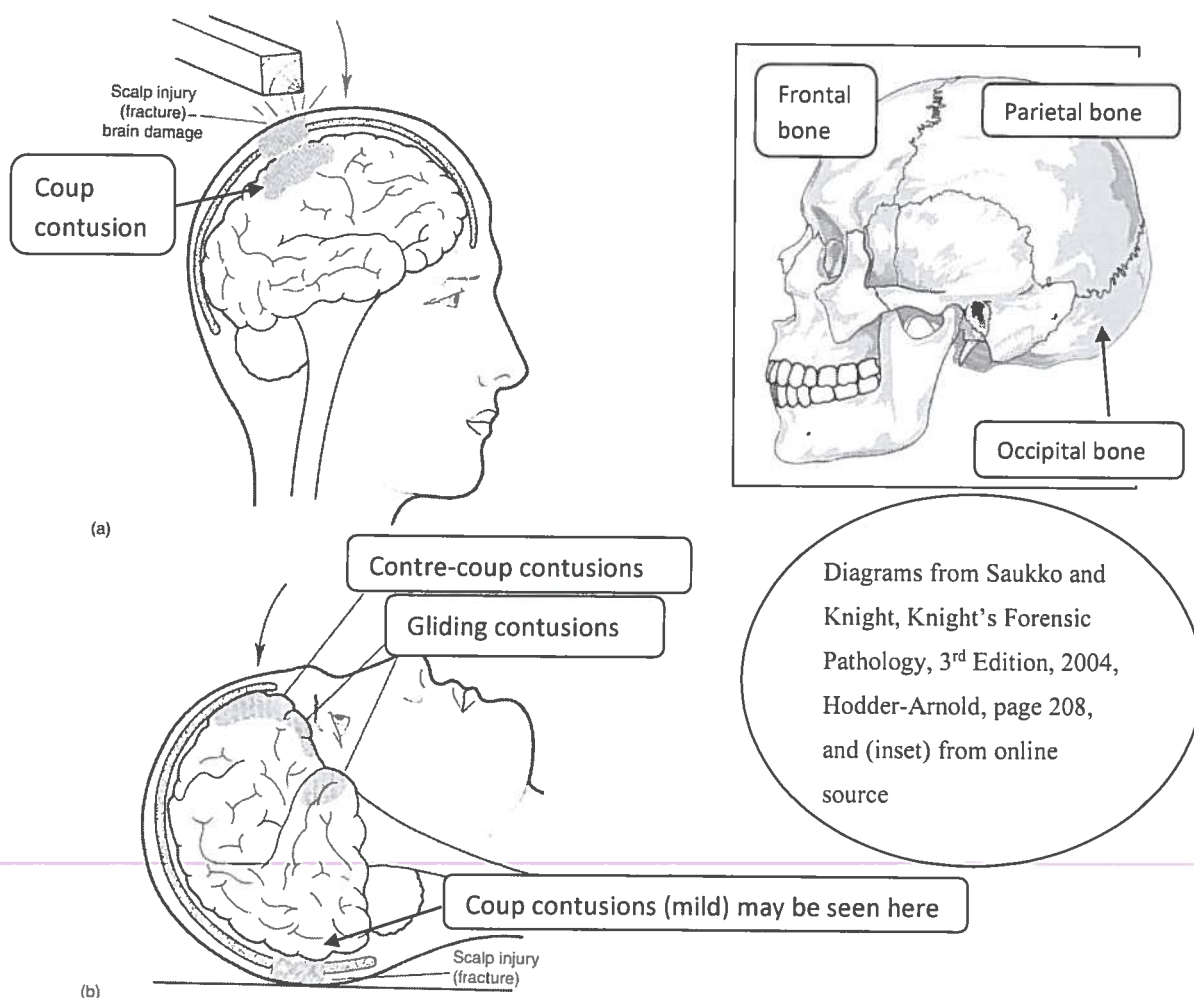


FIGURE 5.42 (a) 'Coup' brain damage to fixed head. (b) 'Contrecoup' brain damage to moving (decelerated) head.

Diagrams from Saukko and Knight, Knight's Forensic Pathology, 3<sup>rd</sup> Edition, 2004, Hodder-Arnold, page 208, and (inset) from online source



21. One explanation is that because contre-coup lesions of the brain are much more severe (more grossly apparent to the eye) than coup lesions, and this may explain the “absence” of a left parietal coup contusion, or that it was so “mild” such that it was overlooked by the autopsy pathologist. This is the most probable explanation in my view.
22. A further explanation is that if the depressed fracture had occurred immediately (in the order of a few minutes at maximum) before the fall from the building, there may would have been too short a time for a full reactionary haemorrhage/bruising (“vital reaction”<sup>7</sup>) to evolve. In my view, however, a more probable explanation is the former as explained by the mechanisms of the contre-coup and gliding contusions in paragraph 20 above.
23. It must be noted that the impact that struck the head at the left parieto-occipital area, whilst the head was free to move, either must have been from a blow to that position, or from an unimpeded fall from a standing height/ upright position to the floor. The haemorrhages of the brain surface in both instances would be the typical contre-coup and gliding contusions. It raises the possibility that a blow to cause such a depressed fracture of the skull would have been severe enough to have caused the deceased to fall immediately to the floor from a standing or even a sitting position. Further, this would explain the bruise at the occipital scalp (back of head) and the gliding contusions. Additionally, in this instance, immediate unconsciousness would ensue, but not immediate death. This is a scenario that could have taken place any time within about 12 hours before the fall from the building, not necessarily within minutes.
24. The degree of the described fronto-basal brain haemorrhage to its injury, read together with the dearth of the same around the liver and lung injuries, strongly supports the possibility that the impact to the left parietal/ left occipital area of head was sustained before the fall from the building; with enough time to present

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<sup>7</sup> Vital reaction is any early or late body reaction to injury and which signifies that the injury occurred whilst the person was alive.

as a vital reactionary haemorrhage. Whereas the relatively minimal haemorrhage around the lung injuries and none around the liver supports the contention that these were fall-related with minimal time to bleed just before death (that would have ensued within a minute or a few minutes at most).

25. Following upon my opinion above on the depressed skull fracture injury, that it must have been present before he fell from the building, it would be valid to further state that this would have been a very severe injury, that the deceased would most probably have been unconscious when falling. This is not a finding from the pathology seen but from a generalist deduction, and such deduction need not be only made by a specialist emergency room physician or neurosurgeon.

#### **E: SUMMARY OF OVERALL MEDICAL FINDINGS**

26. The *primary impact of the fall* was sustained by the forehead and the right side of the elbow and chest, with all the internal organ injuries described. The right femur fracture was a *secondary (recoil) impact* to the ground split seconds after the forehead and chest struck the ground. This tends to support the lateral profile of the body as seen by Adv Matthis in the process of falling as well as when seen lying on the ground below. It would also be consistent, to some degree, of the position of the body as seen on the ground by Mr Deysel.
27. The *injuries explained by the fall (only)* were the internal damage sustained and included the skull and facial fractures (by *frontal/forehead* impact), the cervical spine fracture, all (or most) of the fractured ribs, the damage to the lungs, diaphragms and liver (by *right lateral* impact), and the fractured right femur (by *recoil* impact).
28. The injuries that were *NOT the consequence of the fall* were most of the visible skin surface injuries which were earlier antemortem and healing wounds and which were present before the fall; these included the bruising of the left hand and fingers and the bruising of the dorsum of the left sided toes.

29. The injuries that are ***NOT explained by the fall*** were the depressed skull fracture of the left side of crown of head and left sided occipital bruising, the left-sided jaw injury (fragmented fracture), the left ankle- dislocation (and suspected fracture) with its associated extensive bruising, and the right calf extensive muscle bruising.
30. ***No evidence of “diving” characteristics***: There was no evidence of the kind of characteristic and patterned surface bodily injuries one would expect had the deceased “*dived*” through the window orifice (described in my first report).
31. ***The opinion on the lower limb injuries*** (left ankle dislocation/fracture and the right calf extensive bruising) remain as in my earlier full report, in that the lower limb injuries specified are NOT in keeping with the fall, because the incongruity of the degree/severity of related bruising (“vital reaction”) between these injuries and those of the major fall-related injuries (specifically the lack of reactionary haemorrhage around the liver and minimal of the same around the lungs) attest to their separate times of origin,.
32. ***Ambulation ability of deceased before the fall***: With bilateral below-knee injuries not explained by the fall being present on/in the body, the deceased would NOT have been able to walk normally to get himself off the chair and to the window without being noticed and easily stopped and apprehended in the considerable time that this would have taken, and NOT have been able to effortlessly and without considerable difficulty and pain clamber upon a prop or ledge or chair to elevate himself up to the window sill, nor launch himself off the sill easily.
33. I remain of the opinion that the deceased was possibly ***alive at the time of impacting the ground*** (as stated in my first report).
34. I remain of the opinion that the ***period of survival after striking the ground below*** would be not greater than just between around 1 to 5 minutes but this range cannot be fixed with precision. This would have been regardless of the time he fell from the building.

35. The medical evidence available is unable to help firmly distinguish between death at the early hours of the morning, mid-morning and at later afternoon, or any other time in between. It is my opinion on the available medical evidence that the *deceased could equally have fallen in the earlier part of the day, as much as it would be possible in the later part of the day* when the body was first medically examined.

36. I am the sole author of this report and am wholly responsible for its contents. I base my observations and opinions in this matter on the medical and other documentation made available to me and which I have considered pertinent to my opinion, but reserve the right to review my opinion should additional and further factual material be provided.



.....Dr S R Naidoo

09<sup>th</sup> August 2017

END OF REPORT