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FPS

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STATEMENT OF WITNESS

(C. J. Act, 1967, s.9; M.C. Act, 1980, ss.5A(3) (a) and 5B; Criminal Procedure Rules 2010, Rule 27.2)

Statement of	*Nathaniel Roger Blair Cary, MA, MD, MB BS, FRCPath, DMJ(Path) FFFLM*
Age of Witness	*Over 18*
Occupation of Witness	*Consultant Forensic Pathologist*
Address	*Forensic Pathology Services P. O. Box 1353, NORWICH, NR10 4WA*

This statement, consisting of **six** pages signed by me, is true to the best of my knowledge and belief and I make it knowing that, if it is tendered in evidence, I shall be liable to prosecution if I have wilfully stated in it anything which I know to be false or do not believe to be true.

Dated: 23rd October 2015

Signed ....

Signature witnessed by ....

Qualifications and Experience

I hold the degrees of Master of Arts, Doctor of Medicine, Bachelor of Medicine and Bachelor of Surgery. I am a Fellow of the Royal College of Pathologists and I hold the qualification of Diploma in Medical Jurisprudence in Pathology. I have been a Home Office Registered Consultant Forensic Pathologist for 23 years and currently practise as a full-time Consultant Forensic Pathologist within a practice of 9 partners. My ongoing experience includes the full range of general forensic pathology. I have particular expertise in heart pathology having specialised in this field for nearly ten years at Papworth Hospital in Cambridgeshire in the past. I also have wide experience of cases of death in custody including during restraint. I am an Examiner for the Society of Apothecaries and the Royal College of Pathologists. I am currently involved in teaching in a variety of institutions and I lecture both senior and junior police officers regarding scene examination and about Forensic Pathology in broad terms. I participate in seminars associated with my specialty.

Declaration

I understand that I owe an overriding duty to the Court to provide independent assistance, to the Court, by way of unbiased opinion in relation to the matters within my expertise and that such advice must be uninfluenced by the exigencies of the case. I have complied with, and will continue to comply with, my duty to the Court.

EXPERT OPINION

15-O-0034

To: Aamer Anwar & Co Solicitors

Re: Sheku BAYOH (deceased)

At your request I have been asked to give expert opinion in relation to this case. In relation to this I have received copies of the following:

1. Letter of Instruction, dated 18th May 2015.
2. Preliminary toxicology report sent in an e-mail attachment from Dr Hazel J TORRANCE), Manager of Forensic Toxicology Service.
3. A letter to the Lord Advocate concerning this case, dated 7th May 2015.
4. A further letter to the Lord Advocate, dated 15th May 2015.
5. A second post mortem report prepared by Professor A BUSUTIL, apparently undated.
6. Further supplementary medical report from Professor BUSUTIL, having seen photographs taken at the first post mortem examination.
7. A copy of the post mortem report made by Dr Kerryanne SHEARER and Dr Ralph BOUHAIDAR, dated 6th May 2015, together with enclosed handwritten notes.
8. Final post mortem report dated 18th June 2015.
9. Neuropathology report of Dr Colin SMITH dated 20th May 2015.
10. Toxicology report made jointly by Dr Hazel TORRANCE and Denise McKEOWN, dated 12th June 2015.
11. Report from Lothian University Hospital's Division Medical Microbiology Services, dated 9th May 2015.
12. Radiology report dated 13th May 2015 made by Dr S McLAUGHLIN and CT report by the same, dated 4th June 2015.
13. Photographs taken whilst in hospital and at post mortem examination.
14. Stills from CCTV imagery relating to the deceased's restraint in the street.
15. Expert witness package from Police Investigations and Review Commissioner, dated July 2015.
16. Redacted disclosure statements of police officers A, B, C, D, E, F, G, H, I, J, K.
17. Document entitled Civilian witness statements.
18. Document entitled unlabelled police statements.

This opinion will be in the form of a commentary on the final report of Doctors SHEARER and BOUHAIDAR.

BACKGROUND

I note the history provided within the post mortem report and also the detailed history from police and witnesses provided within the PIRC report. I have been able to make my own independent assessment of the statements.
Whilst this is clearly relevant background to the cause and circumstances giving rise to death, it should be borne in mind that elements of this evidence need to come up to proof in any legal proceedings.
In my opinion this case has all the ingredients of a case where restraint and struggling have the potential to have caused or contribute to death:-

-there was a prolonged episode of restraint
-the deceased was significantly outnumbered
-on most accounts restraint was in the prone position

EXTERNAL FINDINGS

1. Photographs depict conjunctival haemorrhages in both eyes.

2. Some of the external photographs depict areas of scarring. These are not relevant to the cause and circumstances giving rise to death.

3. Some signs of medical intervention are depicted within the post mortem photographs, including on internal dissection of the upper limbs.

4. *Injuries to the head and neck:* It is possible to identify the externally apparent marks of recent injury, in particular abrasions above the left eyebrow and multiple superficial lacerations inside the mouth, particularly in relation to the upper lip.

5. *Injuries to the trunk*: Patchy abrasion is seen over the front of the mid-chest and to the right over a broad area.

6. *Injuries to the right arm:* A superficial laceration seen in relation to the right little finger.

7. *Injuries to the left arm:* Abrasion is seen over the back of the left upper arm and there are a number of abrasions in relation to the left elbow and left forearm. A superficial laceration is seen over the back of the proximal phalanx of the left index finger.

8. *Injuries to the right leg:* Healing abrasions are seen over the front of the right shin.

9. *Injuries to the left leg:* Abrasion is seen over the inner aspect of the left knee and over the front of the left shin.

INTERNAL FINDINGS

1. Sub-scalp bruising is seen in relation to the left frontal region beneath externally apparent abrasions. Externally the brain shows no focal abnormality and there is no intracranial haemorrhage depicted. Further comment in relation to the brain is made below.

2. Findings have been described in relation to the mouth.

3. Layered dissection of the neck is well depicted in the photographs showing an absence of any bruising to the strap muscles and diffuse enlargement of the thyroid gland. No damage to the thyroid cartilage or the hyoid bone is depicted.

4. Facial dissection shows subcutaneous bruising over the right masseter muscle. A small area of bruising over the left zygomatic region.

5. No internal signs of injury are depicted in relation to the chest.

6. In relation to the musculo-skeletal system, subcutaneous haemorrhage is seen over a small area of the left upper back, the radial aspect of the right wrist, underlying a needle puncture mark on the back of the right hand. It is also depicted over the back of the middle third of the left upper arm, underlying a needle puncture mark in relation to the left elbow, underlying abrasion injuries to the left forearm and around the left wrist. Some haemorrhage is seen beneath the skin of the inner right thigh, over the outer right shin, over the inner left thigh and over the front of the left shin. No fractures are depicted.

FURTHER INVESTIGATIONS

Radiology

I have seen a copy of the radiology report. A number of artefacts have been demonstrated but there is no primary evidence of any ante mortem fracturing.

Histology

I have examined material prepared for microscopy from multiple tissue samples taken at the first post mortem examination. I have been provided with multiple sections identified by the accession number F15-542, as well as accompanying paperwork describing the nature of the samples. I have also been provided with a blocking diagram of samples taken from the heart.

My own examination reveals the following:

Heart: Sections of the left ventricle show some variation of the myocyte size with scattered hypertrophy of the myocytes. In one section there is a focus of marginating neutrophil polymorphs. Overall in sections of the left ventricle there is no evidence of scarring or myocyte disarray. Sections of the right ventricle all appear to be normal.

Lungs: Sections show congestion and patchy oedema. There is slight pleural thickening and a sparse sub-pleural lymphoid infiltrate.

Liver: Severe congestion.

Kidneys: Severe congestion.

Pancreas: Autolysis.

Adrenals: Congestion.

Thyroid: Congestion. Slightly nodular architecture. No focal abnormality.

Bone: Section of rib, showing autolysis with fracturing and showing no haemorrhage or associated reaction. A Perls' stain for haemosiderin is negative.

Brain: Congestion.

These findings are in keeping with those described by Drs Shearer and BouHaidar

Toxicology

I note the detailed toxicological findings on a number of blood samples. The relevant positive findings are that blood showed evidence of use of the drug substance alpha-PVP and MDMA at the levels described in the various samples. In addition to MDMA was the presence of MDA, either as a primary administered drug or a metabolite and HDMA and HMMA as metabolites both identified in the urine. Analysis of a urine sample for androgens and synthetic anabolic steroids revealed the presence of nandrolone and metabolites consistent with recent administration of the anabolic steroid nandrolone.

Microbiology

I note that positive findings are likely to be due to contamination and there is no primary evidence of any infective process.

Neuropathology

I have considered the report of Dr Colin SMITH. The main changes are those of evolving global ischaemic brain injury. This is consistent with a period of cardiac arrest and prolonged resuscitation. Importantly there is no evidence of any significant traumatic brain injury or any underlying infective process, including meningitis.

CONCLUSIONS

1. The brief history is reiterated.

2. I agree that there is no evidence of any underlying natural disease process that caused or contributed to death.

3. I agree that the injuries described both externally and internally are of a minor nature and that there is certainly no evidence of any direct traumatic cause of death. The nature and extent of external injuries is consistent with a period of struggling and restraint. There is no evidence of any typical assault type injuries such as facial fractures or more extensive injuries to the mouth than those present here.

4. Toxicological findings indicate recent use of two stimulant drug substances, namely MDMA and alpha-PVP (a cathinone type drug). Both these drug substances are stimulant in nature and as such have the potential to cause or contribute to the development of a heart rhythm disturbance, including a fatal heart rhythm disturbance. I am not a psychiatrist, however from my experience of case work the described acute behavioural disturbance of the deceased is consistent with him being under the influence of stimulant drugs. The findings suggestive of anabolic steroid abuse are noted. This too could provide a basis for acute behavioural disturbance. In relation to any possible role for Pava and CS sprays, in my opinion there is no evidence for any direct role. Had there been a direct role I would have expected the deceased to have been significantly affected immediately following contact, with the most potentially dangerous effects being those giving rise to bronchospasm (asthma like symptoms). An absence of any controlling effects from the use of such sprays in my experience is typical of persons suffering from acute behavioural disorders, including those potentially precipitated by the use of stimulant drugs.

5. In relation to the possibility raised of an excited delirium syndrome, this is not a diagnosis that I consider to be appropriate as a cause of death, accepting that it is used as such in North America. In my opinion it is very much more appropriate to stick to the facts rather than invoke syndromes. The facts here are that there was an acute behavioural disturbance and stimulant drug misuse, both features that are highly relevant to the cause and circumstances of death. One of the most dangerous effects of stimulant drug misuse was not present here, namely hyperthermia. In terms of possible role for restraint, I support the opinions expressed that petechial haemorrhages in the eyes may indicate a degree of asphyxia, in this case most likely originating from compression of the trunk in a face down position rather than any compression of the neck for which there was no evidence. In terms of any role for restraint, this cannot be separately considered from struggling. As is commonly the case in acute behavioural disturbances, the deceased displayed remarkable strength and stamina. Ongoing restraint and struggling in these circumstances is very likely to lead to significant metabolic disturbances with early breakdown of muscle, releasing potassium which can precipitate cardiac dysrhythmias and the development of metabolic acidosis. Indeed, in my opinion, given the presence of a background of potent stimulant drugs, this case cannot be viewed simply as an example of a case of sudden death during restraint. I therefore entirely support the cause of death proposed, namely:

1a Sudden death in a man intoxicated by MDMA (ecstasy) and alpha-PVP, whilst being restrained.

6. The only suggestion I would make would be to substitute the phrase "whilst being restrained" with "in association with struggling and restraint".

7. Persons displaying acute behavioural disturbances of the kind described, whether due to stimulant drug abuse or underlying psychiatric disorders, or indeed a combination, constitute an acute medical emergency which is often extremely difficult to deal with. In ideal circumstances struggling and restraint needs to be minimised and the person needs to be transported to an accident and emergency department.

NC/cg 23.10.15 Dr N R B Cary MA MD MB BS FRCPath DMJ(Path) FFFLM
Home Office Registered Consultant Forensic Pathologist