

Directeur: Professeur Patrice Mangin

Rue du Bugnon 21, CH - 1005 Lausanne
Tél: 41 213147070 - Fax: 41213147090
E-mail: IUML.Central@hospvd.ch

Mr. Rachid Mesli
Alkarama for Human Rights
2 bis Chemin des Vignes 1209
Geneva

Lausanne, 20th July 2006

N/ref. M0600113

PM/BH/BS/dc

**ALI ABDULLAH Ahmed, born 09.03.1969 – 2nd
medicolegal autopsy**

Re:

Dear Sir,

In your letter of 19th June 2006, you commissioned us, at the family's request, to carry out a second medicolegal autopsy on the body of a person whose identity was communicated to us as that of ALI ABDULLAR Ahmed, aged 37 years old.

We have fulfilled your request. Please find attached our report, which is based on:

- a) the medicolegal autopsy (2nd autopsy) carried out by the team at the University Institute of Legal Medicine, Lausanne, Switzerland
- b) histological examinations
- c) toxicological analyses
- d) forensic genetic analyses
- e) the medicolegal odontostomatological examination
- f) the information provided by the organisation "Alkarama For Human Rights"

Report of the 2nd medicolegal autopsy

Report of the medicolegal autopsy on the body whose identity was reported to us as being that of

ALI ABDULLAH Ahmed, born 09.03.1969, and whose death was recorded on 10.06.2006 at the Guantanamo Bay detention camp,

carried out 21st June 2006, beginning at 16:30, in the morgue at the Sanaa Military Hospital (Yemen) by Professor P. MANGIN, Director of the University Institute of Legal Medicine of Lausanne, Dr. B. HORISBERGER and Dr. B. SCHRAG, with the assistance of Mr. Guido TESTORI, assistant, and in the presence of the Deputy Prosecutor of Sanaa, and Drs. Fouad ALKAHIN, Muktar ALHARANI and Abdul-Rab ALARIGI.

A. External Examination

1. The body is that of a man who appears the recorded age of 37 years old, is of robust constitution, is in good nutritional health and measures 164cm. The man is of average build. The body arrived naked, wrapped in a white cotton sheet and in a black plastic body bag closed with a zip. The body appears well preserved and shows no signs of decomposition. It has apparently been preserved by freezing. On the day of the autopsy, the body was still cold and partially frozen, and it was necessary to delay proceedings by five hours in order that the autopsy could be carried out properly.
2. Rigor mortis has disappeared from the four limbs as well as from the temporomandibular joints.
3. The skin is tanned and shows normal levels of nutrition and hydration. There is no specific pigmentation. On the dependent areas corresponding to a dorsal decubitus, the body shows areas of lividity of a dark red colour that remain when pressed with a finger. These areas of lividity can also be seen on the rear face of both legs. The areas upon which the body rests are not affected.
4. The body shows evidence of post-mortem intervention in the form of sutured linear incisions that are primarily consistent with a medicolegal autopsy. These incisions can be found:

on the front of the trunk – a large “Y” shaped incision, whose vertical branch measures 41cm and which extends along the median line of the

area above the pubic region to a horizontal line that passes 3cm above the mamillary line; here the incision divides into the two slanted branches of the “Y” in a symmetrical fashion towards the frontal part of the two shoulders, then continues for 60cm along the anteroexternal face of the upper right limb where it stops at the dorsal face of the wrist and for 60cm along the anteroexternal face of the upper left limb where it stops at the dorsal face of the corresponding wrist,

on the vertical branch dissecting the abdomen, the incision includes another, perpendicular branch 6.5cm above the umbilicus, which extends 4cm to the right,

on the upper right limb, there is another post-mortem incision that extends along the posterointernal face, starting at the posterior region of the corresponding shoulder and finishing at the anterior face of the right wrist, covering a length of 70cm,

on the upper left limb, the same post-mortem incision as above can be found along the posterointernal face, with a length of 70cm extending from the posterior region of the corresponding shoulder and finishing at the anterior face of the left wrist,

on the lower third of the right forearm, there are seven sutured, linear, vertical, parallel, post-mortem incisions that cover the entire circumference and measure up to 7.5cm in length,

on the lower third of the left forearm, six of the same type of post-mortem incisions can be found, measuring up to 8cm in length,

on the lower limbs, there is a large, vertical, linear, post-mortem incision on the left extending from the inguinal region, along the anterior face of the thigh, knee and leg and finishing at the ankle, measuring 80cm in length,

on the lower right limb, the same type of incision can be found, extending from the inguinal region to the ankle, along the anterior face of the thigh, knee and leg, measuring 85cm in length,

on the posterior face of the trunk and lower limbs, there are two large, vertical, linear, parallel, paramedian, post-mortem incisions to the left and right that extend symmetrically from the right and left posterior scapular regions to the homolateral gluteal regions and then along the posterior faces of the two legs, both finishing above

the heels; the right paramedian incision measures 141cm; the left paramedian incision measures 139cm,

on the lower third of the lower right limb, there are seven vertical, linear, sutured, parallel, post-mortem incisions that cover the entire circumference of the limb and measure up to 16 cm in length,

on the lower third of the lower left limb, there are six vertical, linear, sutured, parallel, post-mortem incisions that cover the entire circumference and measure up to 13 cm in length,

on the cephalic extremity, there is a “horseshoe” shaped post-mortem incision extending from one mastoid region to the other at the level of the parietooccipital junctions and measuring 36cm in length; there is also another sutured post-mortem incision in the right suboccipital region, along the base of the cranium, measuring 5cm in length and located in an area of parchment-like skin measuring 5.5cm x 3cm,

on the lower half of the posterior section of the neck there is a vertical post-mortem incision along the median line, extending to the upper thoracic region, measuring 21cm in length; this incision line curves slightly to the right in the lower section.

5. The head is oval-shaped and there is abnormal mobility in the cranial skullcap as a result of a previous autopsy, as demonstrated by the multiple post-mortem incisions described above. The hair is black in colour and an average of 3 cm long. To recap, the scalp has been subject to a “horseshoe” shaped incision from one mastoid region to the other. Below and behind this incision, the scalp has been shaven to a height of 3cm, as has the low median occipital region over an area measuring 10cm x 4cm. In addition, there are two areas of parchment-like skin, both of which appear to be post-mortem in nature, one of which measures 1.5cm x 1cm and the other 5cm x 2cm. The larger of these two areas of parchment-like skin is located in the median occipital region, and the smaller in the left retromastoid region. In the right retromastoid region, there are three other areas of parchment-like skin, measuring 0.7cm in diameter, 1cm x 0.7cm and 1cm x 1.7cm respectively. To recap, there is a post-mortem incision along the base of the cranium in the suboccipital region, measuring 5cm and located in an area of parchment-like skin that measures 5.5cm x 3cm.
6. The skin on the face is pale and does not show signs of engorgement. There is a beard with black hair measuring between 2cm and 3cm in length.

7. The facial skeleton is intact.
8. The eyes are closed. The ocular globes are sunken. Hyperaemia was observed in the conjunctives, without any visible characteristic petechiae. The sclerae show no distinctive features. The corneae are cloudy. The pupils are no longer visible. The colour of the iris is difficult to determine. There is an area of parchment-like skin of 0.5cm in diameter below the external canthus of the left eye, in relation to the external orbit region.
9. The nasal skeleton is intact. The nasal orifices are obstructed by two cotton swabs soaked in a brownish-red liquid.
10. The lips are dehydrated, and the lower lip is markedly drier than the upper lip. In the lower dental arcade, the first incisor on the left (No. 31) is missing. There appears to be a contuse wound to the gums, with irregular edges, measuring 0.7cm tall and 0.3cm wide. This wound is surrounded by a zone of haemorrhagic suffusion extending to a width of 2.5cm to the gingivolabial sulcus (exarticulation of tooth No. 31). The rest of the dentition is in a satisfactory condition. There is a brownish liquid present at the bottom of the mouth orifice.
11. The pinnae show no distinctive features. The external auditory canals are clear.
12. On the neck there is a partially solid, brownish-red groove at the level of the median occipital region. This groove runs sideways from bottom to top and from front to rear. Its anterior section is situated on the lower third of the anterior face of the neck. At the posterior section, the virtual suspension point is located in the median occipital region. This groove is clearly visible in the lateral regions of the neck, where it is parchment-like and vanishes to the rear of the vertical section of the posterior insertion of the right ear and, to the left, at the vertical section of the corresponding mastoid, where it seems to continue through several areas of parchment-like skin, measuring 0.5cm in diameter. In terms of its laterocervical trajectory to the right and left, the groove is clearly delimited and measures 1cm tall. However, in the anterior section, it is considerably less well delimited for several centimetres and is less visible on the anterior face of the neck, where it extends to a maximum height of 2cm. The neck does not show any abnormal mobility, and there is no piston effect.
13. The thoracic cage is of normal shape. Palpation of the rib cage reveals false mobility as a result of previous autopsy procedures.
14. The abdomen is flat. On the right hip cavity there is a horizontal area of filiform parchment-like skin, measuring 0.5cm x 0.1cm.

15. The pubic region has been shaven. The external genital organs are normally developed. There is evidence of an old circumcision procedure. The testicles cannot be detected in the scrotum.
16. The skin on the back shows no distinctive features. There is a thin, vertical, slightly slanted scar at the level of the right posterior axillary line, measuring 3cm x 0.2cm, the top of which is located 17cm below the axillary hollow.
17. The upper right limb is in a normal position. There is an area of dermabrasion measuring 0.8cm x 0.4cm on the internal face of the elbow joint. This dermabrasion is dark red in colour and is slightly parchment-like. On the fold of the right elbow there is a large area of purple-red ecchymosis, measuring 8cm in height and 4.5cm in width, in which there is a punctiform wound measuring 2cm in diameter. On the superoexternal section of the dorsal face of the right hand there is a poorly delimited area of dark red ecchymosis, measuring 6cm tall and 3cm wide. Under a magnifying glass, the centre of this area of ecchymosis contains a small orificial wound of less than 1mm in diameter. The fingernails on the right hand have been cut. The edges of the nails are therefore irregular and partially amputated, with small, related excoriations of the bed of each nail. The palmar region features a blackish pigmentation (fingerprint sampling).
18. The upper left limb is in a normal position. There is an area of linear, filiform, slightly slanted dermabrasion measuring 4cm in length and 0.2cm in width. There is further dermabrasion, parallel to the latter and 2cm above it, measuring 0.3cm long. The fingernails on the left hand have also been cut. The edges are irregular and partially amputated, and also feature small excoriations of the bed of each nail. There is pronounced ungueal cyanosis on both hands. The palmar region features a blackish pigmentation (fingerprint sampling).
19. The lower limbs are in a normal position. On the external face of the left hip there are several areas of parchment-like skin of a brownish-red colour, covering an area 6cm tall and 5cm wide, each measuring up to 1cm long and 0.2cm wide. On the upper half of the anteroexternal face of the left thigh there is a zone of discolouration covering an area 7cm tall and 4cm wide, marked by purple-blue convolutions measuring up to 1cm in length. The plantar faces of the two feet also show blackish pigmentation (footprint samples). The toenails have also been cut on both the right and left foot.

B. Incisions into the skin and underlying tissues

20. Nape of the neck

The nape of the neck was opened through the incision already present on the median line.

Current condition:

- moderate post-mortem alteration of musculature

Supplementary investigations:

- lengthening of the incision along the median line from 2 to 3cm in the low occipital region
- longitudinal incisions into the musculature

- palpation of the spinous processes of the cervical column and the upper part of the thoracic column

Observations:

- absence of ecchymosis and haematoma
- no false mobility of spinal processes during palpitation

21. Distal sections of the limbs

The distal sections of the limbs were opened through the incisions already present.

22. Distal third of the right forearm

Current condition:

- 7 longitudinal incisions affecting the skin and subcutaneous tissue, partially opening the muscular fasciae

Observations:

- absence of ecchymosis and haematoma in the cutaneous, sub-cutaneous and muscular layers

23. *Distal third of the left forearm*

Current condition:

- 6 longitudinal incisions affecting the skin and subcutaneous tissue, partially opening the muscular fasciae

Observations:

- absence of ecchymosis and haematoma in the cutaneous, sub-cutaneous and muscular layers

23. *Distal third of the right leg*

Current condition:

- 7 longitudinal incisions affecting the skin and subcutaneous tissue, partially opening the muscular fasciae

Observations:

- absence of ecchymosis and haematoma in the cutaneous, sub-cutaneous and muscular layers

24. *Distal third of the left leg*

Current condition:

- 6 longitudinal incisions affecting the skin and subcutaneous tissue, partially opening the muscular fasciae

Observations:

- absence of ecchymosis and haematoma in the cutaneous, sub-cutaneous and muscular layers

25. *Fold of the right elbow*

Current condition:

- fresh punctiform wound surrounded by an area of ecchymosis

Supplementary investigations:

- incision into the skin and sub-cutaneous tissue
- sample: skin neighbouring the punctiform wound

Observations:

- haemorrhagic suffusion in the sub-cutaneous tissue

26. Back of the right hand

Current condition:

- punctiform wound surrounded by an area of ecchymosis

Supplementary investigations:

- incision into the skin and sub-cutaneous tissue
- sample: skin neighbouring the punctiform wound

Observations:

- haemorrhagic suffusion in the sub-cutaneous tissue

c. Opening the cavities and neck examination

27. Cranial cavity

The cranium was opened through the incision already present.

Current condition:

- to recap: incision into the scalp measuring approximately 36cm in length, in a concave “horseshoe” shape towards the rear, extending from one mastoid process to the other
- opening of the skull along the base of the cranium
- the skullcap is fixed with a suture line with several crossed sutures from one temporal muscle to the other
- the dura mater has been detached and removed
- the cranial cavity has been completely emptied
- there is partial opening of the median section of the anterior stage of the base of the cranium at the level of the sphenoid and ethmoid bones

Supplementary investigations:

- incisions into the temporal muscles
- incisions into the aponeurotic galea

Observations:

- scalp: reddish in colour, of average thickness
- scalp and temporal muscles: absence of ecchymosis and haematoma
- dura mater: absent
- skullcap: 14.8cm x 17.5cm in diameter, between 0.3 and 0.9cm thick, no false mobility, no pathological transparency
- base of the cranium: normal, three-stage configuration, no distinctive features except for the opening of the median section of the anterior stage (see above)
- the pituitary gland cannot be observed

29. Thoracoabdominal cavity

The thoracoabdominal cavity was opened through the incision already present on the median line.

Current condition:

- section of the lower abdomen
- presence of an orange plastic bag containing entrails
- thoracoabdominal cavity: has been completely emptied; once the plastic bag is removed, there are several millilitres of brownish liquid (blood?) in the thoracic and lumbar lateral vertical grooves

Supplementary investigations:

- opening of the vertebral column
- breaking of the ribs and collarbones
- incisions into the psoas muscles
- samples taken: psoas muscles

Observations:

- thoracic and abdominal adipose layer: rather thin
- musculature of thoracoabdominal inner walls: absence of ecchymosis and haematoma
- rib cage: elasticity consistent with age, no fractures
- vertebral column: no vertebral fractures

- intervertebral discs: no haemorrhaging (absence of Simon's haemorrhages)
- pelvis: no fractures

30. Neck

The neck was opened with two incisions on the lateral faces.

Current condition:

- neck has been emptied

Supplementary investigations:

- incision into the right lateral face, extending from the right shoulder to the right mastoid region
- incision into the left lateral face, extending from the left shoulder to the left mastoid region
- incisions into the platysma as far as the lower dental arcade
- incisions into the pre- and paravertebral musculature
- opening of the carotid arteries
- samples taken: fragment of skin from the groove, fragment of fibrous-adipose tissue from the left, fragment of the right sternocleidomastoid muscle

Observations:

- circumference of the neck: 39.5 cm
- fibrous-adipose tissue: with respect to the groove mentioned above, in the left lateral-cervical region, just below and slightly behind the mandibular angle, there is haemorrhagic suffusion measuring 2.5cm wide, 2cm tall and 0.3cm deep
- musculature: with respect to the same parchment-like groove, in the right lateral-cervical region, at the level of the rear section of the upper half of the sternocleidomastoid muscle, there is haemorrhagic suffusion measuring 3cm wide, 6.5cm tall and 1.5cm deep
- pre- and paravertebral musculature: absence of ecchymosis and haematoma
- fibrous-adipose musculature and tissue relating to the upper edge of the median section of the mandible and the lower dental arcade: absence of ecchymosis and haematoma

- carotid arteries: slight signs of arteriosclerosis, especially in the bifurcations of the carotid arteries

- vertebral column: no distinguishing features under palpation

D. Examination of the entrails

31. The orange plastic bag mentioned above contained the following entrails:

32. Brain

Current condition:

- cut into slices

Supplementary investigations:

- samples taken: cortex, cerebellum

Observations:

- cortex, cerebellum: partially identifiable
- consistency: flaky to mushy
- colour: grey to pink
- no solid tumours, no haemorrhaging, no foreign bodies

33. Organs of the neck

34. Tongue

Current condition:

- separated from the neck entrails
- has undergone transverse section

Observations:

- texture: normal
- absence of ecchymosis and haematoma

35. Thyroid

Current condition:

- fragments of thyroid parenchyma

Supplementary investigations:

- sample taken: fragment of parenchyma

Observations:

- parenchyma: dark, homogeneous, no haemorrhaging

36. Trachea

Current condition:

- only the lower third is present, with identifiable bifurcation
- membrane section is open

Observations:

- absence of ecchymosis and haematoma
- mucous: brownish-red, autolysis

37. Organs of the thorax

38. Pericardium

Current condition:

- partially present
- dark red

Observations:

- no lesions

39. Heart

Current condition:

- fragmented
- partially dissected, separated

Supplementary investigations:

- opened from the coronary arteries
- samples taken: fragments of the inner ventricle walls

Observations:

- myocardium: elastic, brownish-red, no fibrosis or infarction
- thickness of the myocardium: 0.3cm in the right ventricle, 1.4cm in the left ventricle

- valvular system: limited to the aortic valve
- aortic valve: 6cm in circumference, supple
- coronary arteries: identifiable only at their origin, with a few isolated areas of arteriosclerosis

40. *Lung (bilobed)*

Current condition:

- moderate alteration
- incisions into the para- and perihilar regions

Supplementary investigations:

- opening of the pulmonary arteries
- opening of the bronchi
- finer incisions into the whole of the parenchyma
- sample taken: fragment of the pulmonary parenchyma

Observations:

- no subpleural petechiae
- pleura: smooth, shiny
- parenchyma: homogeneous, purple-blue colour, succulent
- pulmonary arteries: unobstructed, supple inner wall
- bronchi: unobstructed, dark red mucous

41. *Lung (trilobed)*

Current condition:

- moderate alteration
- incisions into the para- and perihilar regions

Supplementary investigations:

- opening of the pulmonary arteries
- opening of the bronchi
- finer incisions into the whole of the parenchyma
- sample taken: fragment of the pulmonary parenchyma

Observations:

- no subpleural petechiae
- pleura: smooth, shiny
- parenchyma: homogeneous, purple-blue colour, succulent
- pulmonary arteries: unobstructed, supple inner wall
- bronchi: unobstructed, dark red mucous

42. Abdominal organs

43. Diaphragm

Current condition:

- separated from the entrails
- partially present in the form of a large, detached fragment

Observations:

- homogeneous, purple-blue colour
- no distinctive features

44. Spleen

Current condition:

- organ present in its entirety
- cut into transverse slices

Supplementary investigations:

- sample taken: fragment of the parenchyma

Observations:

- size: 5cm x 8cm x 2.5cm
- capsule: thin
- surface: smooth
- parenchyma: homogeneous, dark red, diffluent
- structure: unrecognisable

45. *Liver*

Current condition:

- in several fragments
- cut entirely into slices

Supplementary investigations:

- samples taken: fragments of the parenchyma

Observations:

- capsule: thin
- surface: smooth
- parenchyma: brownish red, normal structure, elastic consistency, normal flakiness
- no signs of fibrosis or steatosis

46. *Kidneys*

Current condition:

- two kidneys present
- cut entirely into slices
- renal pelvises: open

Supplementary investigations:

- samples taken: parenchyma

Observations:

- surfaces: smooth
- parenchymae: flaccid, normal structure
- renal pelvises: supple

47. *Aorta*

Current condition:

- fragment of abdominal aorta up to the level of the iliac bifurcation
- longitudinal opening
- absence of renal arteries

Supplementary investigations:

- measuring of circumference

Observations:

- circumference above the coeliac trunk: 4 cm
- circumference below the coeliac trunk: 3.5 cm
- inner wall: supple
- tunica intima: reddish colour, several isolated areas of arteriosclerosis

48. Stomach

Current condition:

- present, with an opening along the greater curvature

Observations:

- inner wall: no distinctive features
- serous membrane: no distinctive features
- mucous: blackish-brown, autolysis

49. Intestines

Current condition:

- extracted as a whole from the abdominal cavity

Supplementary investigations:

- opening of the intestines

Observations:

- no distinctive features
- appendix: unidentifiable
- signs of autolysis

50. Bladder

Current condition:

- cavity opened on anterior face

Supplementary investigations:

- evaluation of the permeability of the meatuses to sound

Observations:

- inner wall: normal structure
- mucous: greyish-yellow, slight autolysis
- trigone: normal aspect
- meatuses: permeable

51. Absent or non-identified organs

The following organs could not be found or identified:

- larynx and pharynx
- thyroid cartilage
- hyoid bone
- upper section of the trachea
- part of the neck musculature
- cervical ganglions
- oesophagus
- renal lodges
- mesentery
- suprarenals
- pancreas
- gall bladder
- prostate
- testicles
- appendix
- pituitary gland

E. Samples

52. For toxicological analyses, we have taken a sample of the brownish-red liquid (blood?) in the thoracoabdominal cavities, the skeletal muscle (iliopsoas muscle from both sides), fragments of liver, kidney, cerebral cortex and a tuft of hair.

53. For histological examinations, we have taken the following tissue or organ fragment samples:
- fibrous-adipose tissue from under the left mandibular angle (SM-G)
 - right sternocleidomastoid muscle (SC-D)
 - right carotid artery (C-D)
 - left carotid artery (C-G)
 - trilobed lung (P-D)
 - bilobed lung (P-G)
 - left ventricle of the heart (VG)
 - right ventricle of the heart (VD)
 - liver (F)
 - spleen (R)
 - kidneys (left and right) (RE)
 - cerebellum (CV)
 - cerebral cortex (CO)
 - skin from the groove on the neck (SI)
 - injection/puncture mark in the fold of the right elbow (IC)
 - injection/puncture mark on the back of the right hand (IM)

54. For genetic analyses, we have taken a sample of the skeletal muscle (iliopsoas muscle) and of the brownish red liquid (blood) in the thoracoabdominal cavity.

Dr. B. HORISBERGER
Hospital doctor

Professor P. MANGIN

Dr. B. SCHRAG
Assistant doctor

Histological examinations

Cerebellum

(haematoxylin-eosin, van Gieson and Prussian blue colouration)

The sample is a section cut from a cerebellum lobe. The general structure has been preserved. However, the beginning of very slight post-mortem alteration can be observed. There are no noticeable lesions. The reaction to Prussian blue is negative.

Cerebral cortex

(haematoxylin-eosin, van Gieson and Prussian blue colouration)

The samples are from the cortical and subcortical regions. The general structure has been preserved. The perivascular tissue of several vessels shows deposits of yellowish-brown pigmentations, the majority of which also show a slight infiltration of inflammatory mononuclear cells. The remainder shows no noticeable lesions. The reaction to Prussian blue is negative.

Left ventricle of the heart

(haematoxylin-eosin and van Gieson colouration)

The sample is a section of the inner wall of the ventricle. The general structure has been preserved. However, there are several slight basophilic masses of a post-mortem bacterial nature. The muscular fibres are arranged normally and are of average size. There are some post-mortem modifications (fragmentation) as well as some slight areas of contraction bands (type 1). The interstitial tissue shows no distinctive features. The epicardium and endocardium show no distinctive features.

Right ventricle of the heart

(haematoxylin-eosin and van Gieson colouration)

The sample is a section cut from the ventricle. The general structure has been preserved, but the beginnings of post-mortem alteration can be seen. There is subepicardial adipose tissue present in a more abundant quantity than in the left ventricle and extending as far as the muscular layer. The muscular fibres show slight undulation in places.

Kidneys

(haematoxylin-eosin and van Gieson colouration)

There are samples of both kidneys (one sample per kidney). The general structure has been changed by the beginnings of post-mortem alteration, including the decrease or complete loss of colour of the fragments, particularly the epithelium of the uriniferous tubules, as well as by the beginnings of structure homogenisation, limiting any interpretation. However, there are no noticeable lesions.

Liver

(haematoxylin-eosin and van Gieson colouration)

The sample is of a hepatic parenchyma. The general structure has been changed by the beginnings of post-mortem alteration, including the decrease in colour of the fragments and post-mortem modifications to the parenchyma, limiting any interpretation. However, there is no fibrosis, nor is there any inflammatory infiltration. The hepatocytes show hepatocyte clearing and, in places, slight vacuolisation (optically empty, mainly microvesicular vacuoles). The portal circulation areas showed no distinctive features.

Spleen

(haematoxylin-eosin and van Gieson colouration)

The sample is of a splenic parenchyma. The general structure has been changed as a result of the beginnings of post-mortem alteration. However, there are no noticeable lesions in the white and red pulps.

Trilobed lung

(haematoxylin-eosin and van Gieson colouration)

The sample is from the parenchyma of the trilobed lung. The general structure has been preserved. However, there are several basophilic masses of a post-mortem bacterial nature. The septa and alveoli are of a normal aspect. In the space within the alveoli, there are several squamous pneumocytes, and in places there is pale eosinophilic material (oedema). The capillaries are filled with red blood cells.

Bilobed lung

(haematoxylin-eosin and van Gieson colouration)

The sample is from the parenchyma of the bilobed lung. The general structure has been preserved. However, there are several basophilic masses of a post-mortem bacterial nature. The septa and alveoli are of a normal aspect. In the space within the alveoli, there are several squamous pneumocytes, and in places there is pale eosinophilic material (oedema). The capillaries are filled with red blood cells.

Skin from the groove on the neck

(haematoxylin-eosin, van Gieson and Prussian blue colouration)

The sample is from the groove itself and the surrounding healthy skin. It includes the epidermis, dermis and hypodermis. The general structure has been preserved. In terms of the groove, the epidermis is thin, with nuclei that are denser, closer together and longer in shape than in the healthy skin. There are no signs of haemorrhagic suffusion either in the dermis or in the hypodermis. The reaction to Prussian blue is negative.

Fibrous-adipose tissue from under the left mandibular angle

(haematoxylin-eosin, van Gieson and Prussian blue colouration)

The sample contains adipose tissue interrupted by areas of fibrous tissue, layers of fibrous tissue, skeletal muscle and glandular parenchyma. The general structure has been preserved. There are extravasated red blood cells (haemorrhagic suffusions) within the fibrous-adipose tissue, although there is no inflammatory reaction. The glandular parenchyma shows no distinctive features. In terms of the skeletal muscle, there are several areas where the myocytes show contortion bands. The reaction to Prussian blue is negative.

Right sternocleidomastoid muscle

(haematoxylin-eosin, van Gieson and Prussian blue colouration)

The sample contains muscular fibres, separated in places by interstitial fibrous tissue. The general structure has been preserved. In places there are extravasated red blood cells (haemorrhagic suffusions), without any inflammatory reaction. In some places, the myocytes show type I and II contraction bands. The reaction to Prussian blue is negative.

Right carotid artery

(haematoxylin-eosin, van Gieson and Prussian blue colouration)

Three samples were taken. The general structure has been preserved. There is a vascular arterial-type wall, which shows no lesions except, in places, for very slight intimal thickening (of an atheromatous nature). It is of note that there is no haemorrhagic suffusion. The reaction to Prussian blue is negative.

Left carotid artery

(haematoxylin-eosin, van Gieson and Prussian blue colouration)

Three samples were taken. The general structure has been preserved. There is a vascular arterial-type wall, which shows no lesions except, in places, for intimal thickening (of an atheromatous nature), which is more marked than in the sample from the right carotid artery. It is of note that there is no haemorrhagic suffusion. The reaction to Prussian blue is negative.

Injection/puncture mark in the fold of the right elbow

(haematoxylin-eosin, van Gieson and Prussian blue colouration)

The sample is a transverse section containing the epidermis, dermis and hypodermis. The general structure has been preserved. The only noticeable lesion is the presence of extravasated red blood cells in the hypodermis, although there is no inflammatory reaction. The reaction to Prussian blue is negative.

Injection/puncture mark on the back of the right hand

(haematoxylin-eosin, van Gieson and Prussian blue colouration)

The sample is a transverse section containing the epidermis, dermis and hypodermis. The general structure has been preserved. The only noticeable lesion is the presence of extravasated red blood cells in the hypodermis, although there is no inflammatory reaction. The reaction to Prussian blue is negative.

Anatomopathological diagnosis

1) Signs of violence against the neck

- Groove which goes two thirds of the way around the neck, with an anterior section, situated in the middle third of the neck, which is wide and badly delimited, and narrower, parchment-like, more clearly delimited lateral sections, which disappear to the rear, with the virtual suspension point situated in the occipital region
- Haemorrhagic suffusion in the upper section of the anterior edge of the right sternocleidomastoid muscle
- Haemorrhagic suffusion of the fibrous-adipose tissue of the neck, situated just above the left mandibular angle

2) Other vital traumatic lesions

- Injection/puncture marks surrounded by ecchymosis, one situated in the fold of the right elbow, the other on the back of the right hand
 - Complete exarticulation of the first lower left incisor (tooth No. 31), with tearing of the gums and related haemorrhagic suffusion
 - Recent chipping of the sharp edge of tooth No. 22
 - Localised erythema in the sulcus relating to teeth Nos. 12, 11, 21, 22, suggesting signs of dental subluxation
- Fracture of the mesial angle of tooth No. 41, possibly associated with the exarticulation of tooth No. 31

3) Pre-existing lesions

- Very slight signs of arteriosclerosis (bifurcation of carotid arteries, abdominal aorta)
- Old, slight perivascular haemorrhaging in the cerebral cortex

4) Lesions caused by post-mortem investigations

- The body has been subjected to a post-mortem examination of the three cavities, with openings in the posterior face of the trunk, the posterior and anterior faces of the limbs, and several post-mortem incisions on the wrists and ankles

- Parts of organs or entire organs are either missing or non-identifiable: larynx, pharynx, thyroid cartilage, hyoid bone, upper section of the trachea, part of the musculature of the neck, cervical ganglions, oesophagus, renal lodges, mesentery, suprarenals, pancreas, gall bladder, prostate, testicles, appendix, pituitary gland

5) Further observation

- Post-mortem alteration has begun

Laboratory of forensic toxicology and chemistry

Lausanne, 29-06-2006

**Re: _____ File No. ALC 35502, Batch 764 Ahmed
ALI ABDULLAH, 09.03.1969**

We have carried out an ethylic alcohol dosage test on sample No. M0600113, in the name of Ahmed ALI ABDULLAH:

Sample type: Blood

Date of receipt: 26-06-2006

Date sample taken: 21-06-2006

Time sample taken:

Results

Average alcohol level: 0.18 grams per thousand. Confidence interval: [0.13; 0.23] grams per thousand.

Note:

Dr. Marc Augsberger
Biologist, Toxicologist
Head of laboratory

Copy to: Prof Patrice Mangin, IUML, Rue du Bugnon 21, 1005 Lausanne

This report deals only with the samples submitted for analysis. Details regarding the analysis methods used may be obtained on request.

The samples will be retained for a period of one year from the date of delivery of this report. After this date, the sample will be destroyed unless you advise us otherwise.

This report may not be partially reproduced. The use of individual results is authorised as long as the source is cited.

University Institute of Legal Medicine

Directeur: Professeur Patrice Mangin

Rue du Bugnon 21, CH - 1005 Lausanne
Tél: 41 213147070 - Fax: 41213147090
E-mail: IUML.Central@hospvd.ch

Laboratory of forensic toxicology and chemistry

g)

Lausanne, 29-06-2006

**Re: _____ File No. ALC 35503, Batch 764 Ahmed ALI
ABDULLAH, 09.03.1969**

We have carried out an ethylic alcohol dosage test on sample No. M0600113, in the name of Ahmed ALI ABDULLAH:

Sample type: Muscle

Date of receipt: 26-06-2006

Date sample taken: 21-06-2006

Time sample taken:

Results

Average alcohol level: 0.13 grams per thousand. Confidence interval: [0.08; 0.18] grams per thousand.

Note:

Copy to: Prof Patrice Mangin, IUML, Rue du Bugnon 21, 1005 Lausanne

This report deals only with the samples submitted for analysis. Details regarding the analysis methods used may be obtained on request.

The samples will be retained for a period of one year from the date of delivery of this report. After this date, the sample will be destroyed unless you advise us otherwise.

This report may not be partially reproduced. The use of individual results is authorised as long as the source is cited.

Directeur: Professeur Patrice Mangin

Rue du Bugnon 21, CH - 1005 Lausanne
Tél: 41 213147070 - Fax: 41213147090
E-mail: IUML.Central@hospvd.ch

Laboratory of forensic toxicology and chemistry
Manager: Marc Augsburger, Dr ès Sc.

Professeur Patrice Mangin
Directeur de l'Institut Universitaire de
Médecine Légale
Rue du Bugnon 21
1005 Lausanne

Lausanne, 29th June 2006

Re:

Analysis report TOX / 060626 - 35501

ALI ABDULLAH Ahmed, 1969

**Systematic search for medical toxins and drugs
in biological samples**

1. SAMPLES

On 26th June 2006, we received the following samples, taken during the course of autopsy M060113:

- 3 x approx. 5ml of fluoride blood from the thoracoabdominal cavity
- approx. 5ml of EDTA blood from the thoracoabdominal cavity
- samples of liver, kidney, skeletal muscle, cerebral cortex
- hair

II. RESULTS

II.1. Preliminary tests

Results of the preliminary tests (immunological tests) carried out on the blood:

Substance	Result	Cut-Off
Amphetamines	not detected	equivalent of 25ng d-amphetamine/ml
Barbiturates	not detected	equivalent of 20ng secobarbital/ml
Benzodiazepines	not detected	equivalent of 10ng oxazepam/ml
Buprenorphine	not detected	equivalent of 0.5ng buprenorphine/ml
Cannabis	not detected	equivalent of 5.0ng delta9-THC-9-carboxylic acid/ml
Cocaine	not detected	equivalent of 20ng benzoylecgonine/ml
LSD	not detected	equivalent of 1.0ng LSD/ml
Methadone	not detected	equivalent of 10ng methadone/ml
Opiates	not detected	equivalent of 10ng morphine/ml

□ Further preliminary test carried out on the blood:

cyanide not detected

II.2. Screenings, confirmations and dosages

The qualitative analyses carried out by CPG-SM searched for volatile and non-volatile basic, acidic and neutral toxins (mainly drugs, “designer drugs”, poisons, pesticides, doping agents, solvents and other pollutants as well as their metabolites as mentioned in the libraries of Pflieger, Maurer and Weber (eds. 2000), Wiley7N, AAFS2000, NIST98 and IUML_Tox).

II.2.1 Liver

□ The qualitative analyses carried out by CPG-SM showed the presence of the following substances:

- Caffeine and theobromine

II.2.2. Blood

□ The qualitative analyses carried out by CPG-SM did not find any evidence of the presence of the substances in question.

IV. CONCLUSION

The analyses of the biological samples taken during autopsy M0600113 on **Ahmed ALI ABDULLAH (TOX-35501, ALC-35502 and ALC-35503)** indicate the presence, in the blood, of ethylic alcohol (ethanol), acetone, 1-propanol and 2-butanol. In the liver, there was evidence of caffeine and theobromine. In addition, there was found to be ethylic alcohol (ethanol) in the skeletal muscle.

Some of the substances found during the analyses, namely ethanol, acetone, 1-propanol and 2-butanol, may appear as a result of post-mortem alterations in the body.

Taking into account the sensitivity limits of the analytical techniques used, the analyses of the principal biological samples provided did not demonstrate the presence of other toxins, drugs or medications in quantities that may be considered as significant on a toxicological scale. This report deals only with the samples submitted for analysis. Details regarding the analysis methods used and their margin of error may be obtained upon request. The samples will be retained for a period of 12 months from the date of delivery of this report. After this date, the sample will be destroyed unless you advise us otherwise. This report may not be partially reproduced. The use of individual results is authorised as long as the source is cited.

Professor
Patrice Mangin
IUML

N/Ref. : P06-00068 - cas

Lausanne, 28th June 2006

Re: Determination of the origin of a sample of blood through forensic genetic analysis

Dear Professor,

On 26th June 2006, we received a sample of blood on FTA paper and a piece of muscle from the forensic medicine unit, which had been taken from a male body during autopsy M0600113.

It was our mission to establish and present the DNA profiles resulting from this material as well as to confirm the nature of the material under analysis.

We have fulfilled your request. You will find our report below.

Material to be analysed

On 23rd June 2006, we received a sample of blood on FTA paper and a piece of muscle taken from the body of ALI ABDULLAH Ahmed, born 09.03.1969 (autopsy M0600113).

Methods

The DNA was extracted from the samples then amplified through PCR (Polymerase Chain Reaction) using the PowerPlex16 (Promega) kit and following the manufacturer's instructions. This kit allows for the analysis of 15 independent genetic loci simultaneously as well as the determination of the gender of the person from whom the sample was taken (amelogenin). Finally, the genetic profile was obtained by analysing the previously amplified DNA using a capillary electrophoresis machine. The analyses were carried out twice in accordance with the Swiss Society of Legal Medicine. We also analysed the blood sample using the Seratec HemDirect test, which is an immunochromatographic test that can detect the presence of human or primate haemoglobin.

Results

The double analyses carried out at the University Institute of Legal Medicine in Lausanne gave identical profiles for the genetic markers examined. More specifically, the same male profile of 15 loci was obtained for the blood and the muscle taken from the body during autopsy M0600113. The Seatec HemDirect test gave a positive result, signifying that haemoglobin was detected.

Conclusions

The DNA profiles obtained for the blood and muscle taken from the body during autopsy M0600113 show the same genetic characteristics. The evidentiary value of this analytical result was evaluated according to the following two hypotheses:

- H1: the blood and the muscle both come from the body on which the autopsy was carried out
- H2: the blood and the muscle come from two unknown persons

The similarity between the samples, calculated according to the frequency of alleles in the Swiss population, is above 10,000,000, signifying that it is approximately 10,000,000 times more likely that that these profiles would be observed if the blood and muscle came from the body on which the autopsy was carried out than from two different persons.

The results of our analyses therefore strongly support the hypothesis that the blood and muscle both come from the body on which autopsy M0600113 was carried out.

C. SIMILI

Biologist

V. CASTELLA

Biologist, Dr ès Sc.

Important: this report is only valid for the sample provided for analysis and within the sensitivity limits of the analysis methods used. Details of these may be obtained on request. This report may not be reproduced in part or in whole without the laboratory's written authorisation. A copy of this report will be retained by our institute for a period of at least five years. The remainder of the material will be retained for 1 year from the date of delivery of this report. After this date, the sample will be destroyed unless you advise us otherwise.

UNIVERSITY INSTITUTE OF LEGAL MEDICINE
Medicolegal odontostomatology unit
rue du Bugnon 21
1005 LAUSANNE

Lausanne, 27th June 2006

**REPORT OF THE ODONTOSTOMATOLOGICAL POST-MORTEM
EXAMINATION BASED ON PHOTOGRAPHIC DOCUMENTS**

Body M0600113

Reported identity: **Ahmed Ali Abdullah, 03.09.69**

Examination requested by: Prof. Patrice Mangin, Dr. Beat Horisberger, Dr. Bettina Schrag,
legal medics

Examination carried out by: Dr Michel Perrier MER, consultant odontologist

Date of the examination: 27.06.06

Photographic documents provided by:

- Dr. Beat Horisberger and Dr. Bettina Schrag, legal medics

Ante-mortem information:

none

Post-mortem sample:

- 11 post-mortem photographs

A. Observations

1. Maxillary

- horizontal lesion in the vermilion zone (approx. 1.5cm) located on the right hand side of the upper lip
- vestibular faces of the following teeth visible: 13, 12, 11, 21, 22, 23
- slight signs of gingivitis and discolouration

- normal gingival sulcus, in places (12, 11, 21, 22) showing erythema, which may be the result of traumatic dental subluxation
- the alveolar mucous is slightly hypertrophic
- no sign of paradontitis
- 22: sharp edge chipped (recent lesion given the neatness of the fracture)
- 23: evident erosion of the sharp edge

2. Mandible:

- vestibular faces of the following teeth visible: 33, 32, 41, 42, 43
- signs of gingivitis with discolouration and small tartar deposits
- no apparent sign of paradontitis
- 41: fracture of the mesial angle; difficult to evaluate how recently this event happened
- 31 : tooth completely removed (root may still remain, although is not visible), associated with localised tearing of the mucous which extends in a vestibular direction and beyond the mucogingival line with a gap in the tooth alveolus, with no signs of healing or granulation. The lesion suggests recent, violent dental trauma, probably in a vestibular direction (towards the exterior) with the apparent destruction of the external bony alveolar wall. It is possible that the fracture of the mesial angle of tooth 41 may be associated with this trauma. The available photographic documents do not provide enough evidence to support this hypothesis.

B. Conclusions

Based solely on photographic documents, I, the undersigned, confirm the presence of recent trauma on the following teeth:

1. tooth 22: recent chipping of the sharp edge;
2. teeth 12, 11, 21, 22: localised sulcular erythema suggesting signs of dental subluxation;
3. tooth 31: traumatic exarticulation which, upon examination, appears to have happened just prior to death or near to the time of death;
4. tooth 41: fracture of the mesial angle, which is difficult to place temporally, but may be associated with the exarticulation of tooth 31.

All of these observations were carried out on the basis of photographic documents alone. The lesions observed appear to be compatible with a traumatic event that happened just prior to death or near to the time of death.

Dr Michel Perrier
dental consultant

Information provided by the organisation “Alkarama For Human Rights”

According to the information received by the organisation “Alkarama for Human Rights”, on 10th June 2006, three people died in the Guantanamo detention camp, including Ahmed ALI ABDULLAH, a Yemeni national, and a further two Saudi nationals.

The organisation “Alkarama for Human Rights” was asked by the victim’s family to help organise a second autopsy on the body, with the aim of discovering whether the suicide hypothesis could be confirmed or refuted.

With regard to Ahmed ALI ABDULLAH, the organisation has provided us with the following information: he had been detained at Guantanamo for 4 years. The family had had no contact with him. His parents had sent two letters, but received no reply. His father rejects the diagnosis of suicide put forward by the American authorities. In fact, suicide is prohibited by the Islamic religion and is therefore contrary to his son’s religious convictions. In addition, another of his sons is still detained at Guantanamo.

With regard to the two Saudi inmates, we were informed that their bodies were also subject to an autopsy at the request of the Saudi authorities.

Dr. Saeed G. Al-Ghamdy, director of the Institute of Legal Medicine in Riyadh, informed us that he had already carried out the autopsies and that he had contacted the American authorities for further information, particularly surrounding the circumstances in which the bodies were discovered and the medical and medicolegal investigations carried out on site, before the bodies were returned to the families.

Discussion

The discussion is based on the information received from the organisation “Alkarama for Human Rights”, as well as on the results of the medicolegal investigations, and in particular the second medicolegal autopsy carried out by the team at the University Institute of Legal Medicine in Lausanne 11 days after death.

The second autopsy’s principal result was to reveal signs of violence against the neck, which were as follows:

- a groove encircling two thirds of the neck and rising towards the rear
- haemorrhagic suffusion of the right sternocleidomastoid muscle
- haemorrhagic suffusion of the fibrous-adipose tissue located just below the left mandibular angle.

In addition, we observed two injection/puncture marks with ecchymosis on the upper right limb (inner elbow and back of the hand), as well as the fresh exarticulation of the first left lower incisor with related haemorrhagic suffusion. These lesions are all vital, signifying that they were suffered whilst the individual was alive.

During the autopsy, we observed that the body in question had already undergone an autopsy, during which the three cavities, the dorsal face of the trunk and the anterior and posterior faces of the limbs were opened, the entrails were entirely removed and placed in a plastic bag except for some organs or parts of organs (see above), and organs and parts of organs were dissected.

Furthermore, it is important to stress the limitations of this medicolegal interpretation, partly as a result of the beginnings of post-mortem alteration, and partly as a result of the modifications caused by the first autopsy, which prevented us from taking a number of biological samples for toxicological analysis (notably peripheral blood and urine). In addition, it was therefore impossible to examine certain organs or parts of organs such as the larynx and its skeleton.

On the basis of the elements currently available to us, the most likely cause of death is mechanical asphyxiation associated with violence against the neck. This asphyxiation is compatible with hanging, although this does not formally exclude other violent mechanisms (such as strangulation), either on their own or in combination with hanging.

The odontostomatological lesions observed, and the fresh exarticulation of the lower left incisor in particular, in conjunction with the absence of bruising to the lips, give cause to the need to access the American authorities’ reports on this matter. The signs observed in situ suggest a traumatic origin and it is possible that they may be associated with a resuscitation attempt. They do not, however, suggest blunt trauma against the mouth region, which would cause other associated lesions (contused wound, ecchymosis).

With regard to the injection/puncture marks with ecchymosis observed on the upper right limb (inner elbow and back of the hand), there are three possible hypotheses:

- 1) the lesions were caused during a resuscitation attempt
- 2) the injection/puncture was carried out by a third party before death
- 3) the injection/puncture was carried out by the individual himself (a highly unlikely hypothesis)

It should be noted that the body was in a satisfactory state of nutrition and hygiene.

The forensic genetic analyses were able to establish that the brownish red liquid collected from the thoracoabdominal cavity is human blood and that it is from the body whose identity was given to us as ALI ABDULLAH Ahmed.

In the absence of peripheral blood, the toxicological analyses were carried out on the sample of blood collected from the thoracoabdominal cavities. The results of these analyses indicate the presence of ethylic alcohol in the blood at an average level of 0.18g/kg, as well as of acetone, 1-propanol and 2-butanol. No other substance of medicolegal interest was present. In all likelihood, these substances were produced as part of the post-mortem alteration process observed during the second autopsy. As a result, at the moment of death, the individual concerned was unlikely to have been under the influence of medication or drugs.

With regard to the circumstances of the death, it is necessary to raise a number of points requiring clarification:

the well delimited, narrow parts of the cervical groove (lateral sections) are not normally observed with the indicated cause of death (use of sheets and clothing as a means of hanging),

the haemorrhaging of the areas below the neck do not formally coincide with the observed groove on the skin,

There are other traumatic lesions besides those on the neck, especially the fresh exarticulation of the first lower left incisor and the presence of injection/puncture marks on the upper right limb, insofar as they are not consistent with a resuscitation attempt or self-injury.

At the current time, and subject to the element outline above, our investigations do not appear incompatible with the hypothesis of suicide by hanging, but do not exclude any other possibility outright. To this end, we sent a letter to the American authorities requesting additional information (see attached letter). To date we have not received the information requested. We reserve the right to reconsider our conclusions based on any further information we may receive.

It is worth noting that our Saudi colleagues dealing with the second autopsy on the bodies of the other two detainees have also expressed the need to obtain further information along the same lines as our request.

Whatever the cause may be, we believe it necessary to evaluate the detention conditions. This is not, however, within the remit of medicolegal experts.

Conclusions

- 1) The principal result of our investigations was to reveal signs of violence against the neck (groove, haemorrhaging of the muscles and fibrous-adipose tissue), two injection/puncture marks with ecchymosis on the upper right arm, and the fresh exarticulation of the first lower left incisor.**

- 2) The cause of death is, in all likelihood, the result of mechanical asphyxiation from violence against the neck compatible with hanging, although this does not formally exclude any other mechanism.**

- 3) The injection/puncture wounds with ecchymosis on the upper right limb and the dental trauma may be explained by a resuscitation attempt. However, they may represent an area of suspicion with regard to the circumstances of the death.**

- 4) The toxological analyses did not show evidence of any medication or drugs that may have interfered with the death or the circumstances leading to it.**

5) At the current stage of our investigations, and with the information at our disposal, subject to point 3, our observations are not incompatible with the hypothesis of suicide.

6) Under this hypothesis, and taking into account the objections put forward by the family, there may be a case for questioning the role of the detention conditions in contributing to this act of self-injury.

7) As of the date of this report, the information requested from the American authorities has not been received.

We remain at your disposal should you require any further information.

Yours sincerely,

Dr. B. HORISBERGER
Hospital doctor

Professor P. MANGIN

h) Dr. B. SCHRAG
Assistant doctor