

CLINICAL RECORD

AUTOPSY PROTOCOL

DATE AND HOUR DIED 18 November 1978	A. M.	DATE AND HOUR AUTOPSY PERFORMED 15 December 1978,	A. M.	CHECK ONE		
	P. M.		P. M.	FULL AUTOPSY	HEAD ONLY	TRUNK ONLY
PROSECTOR Robert L. Thompson, CAPT, MC, USN	ASSISTANT Kenneth H. Mueller, LTCOL, USAF			X		

CLINICAL DIAGNOSES (Including operations)

This body (later identified as Carolyn Moore) was one of a large number of bodies discovered at Jonestown, Guyana on or about 19 November 1978 by members of the Guyanese Defense Force. The scene, as reported in various news media and by government officials of Guyana, was said to be grotesque in the extreme. A few witnesses, again reported in various news media, said that most of these people, some willingly and others unwillingly, had ingested poison(s) which fairly quickly led to their deaths.

After inquiries into the cause and manner of death by Guyanese officials, including Dr. Leslie Mootoo, forensic pathologist to the government of Guyana, the bodies, which were rapidly putrefying in the hot and humid tropical climate of Guyana, were released by the government of Guyana and transported by the United States Air Force from Jonestown, Guyana to Dover AFB, Delaware between 23 and 26 November 1978. Efforts to identify the bodies and add to the store of reliable information about the causes and manners of their deaths were carried on at Dover AFB from 27 November 1978 onward.

PATHOLOGICAL DIAGNOSES

- Cause of death: Probable cyanide poisoning.
- Young adult Caucasian female (embalmed) in advanced stages of post-mortem decomposition with maggot infestation.
- Manner of death: Undetermined.

Robert L. Thompson
 ROBERT L. THOMPSON, CAPT, MC, USN

K. H. Mueller

KENNETH H. MUELLER, LTCOL, USAF, MC

MILITARY ORGANIZATION (None required)	AGE 33	SEX Female	RACE Caucasian	IDENTIFICATION NO.	AUTOPSY NO.
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PATIENT'S IDENTIFICATION (For typed or written entries give: Name—last, first, middle, grade, date, hospital or medical facility)	REGISTER NO.	WARD NO.
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CAROLYN LAYTON (MOORE)
 AFIP #1680344

AUTOPSY REPORT -(A002)

AFIP #1680344

Name: CAROLYN LAYTON (MOORE)
Age: 33 years
Date of Birth: July 13, 1945
Sex: Female
Race: Caucasian
Date of Death: November 18, 1978
Date of Autopsy: December 15, 1978
Prosecutor: Robert L. Thompson, CAPT, MC, USN
Witnesses: Kenneth H. Mueller, LtCol, USAF, MC
Joseph M. Ballo, LTC, MC, USA
Douglas S. Dixon, MAJOR, MC, USA
Rudiger Breitenecker, M.D.

This is one of the bodies (2A) transported by the United States Air Force from Jonestown, Guyana to Dover Air Force Base, Delaware.

Body Identification:

The body is identified as Carolyn Layton (Moore) by fingerprints taken by the Federal Bureau of Investigation, and by comparing postmortem dental observations with antemortem dental records by Colonels Hooker and Perez, USAF, DC. The name "C. Layton" is printed on the panties found in place on the body. Antemortem medical records are not available.

Description of Clothing and Personal Effects:

When first seen on 26 November 1978, the body is clothed in a white knit blouse, black slacks, bra and panties. No shoes or socks are present. Two gold-colored chains are worn around the neck. Metal earrings are held in place by pierced ears; that on the right resembled a rose while that on the left contained only the metal holder for the earring. The name "C. Layton" is printed on the panties.

External Description:

When first seen on 26 November 1978 the body is received clothed (see above) and in a body bag. Postmortem decomposition is moderate to marked and notable for bloating, general discoloration, and mild to moderate maggot infestation. The height is measured at 64 inches and the weight is estimated at 115 pounds. The remains are those of a Caucasian female with dark reddish-brown long hair. Color of eyes and age cannot be determined owing to post-mortem decomposition. Upper and lower teeth are present, in good repair, and generally pink-stained.

When examined again on 15 December 1978, the body is received unclothed in a body bag. The remains have been embalmed by trocar injection, and are covered with a whitish powder preservative. The height is measured at 63 inches and the weight measured at 110 pounds. The hair is long, dark reddish-brown, and held in place by multiple large metallic bobby pins. The general appearance of the body is that of a young adult Caucasian female in which postmortem decomposition is advanced and notable for dark discoloration of the skin with "marbling" of the superficial vessels in the legs, some (but not marked) gaseous distention, and peeling of the skin of the hands and feet. The fingers and thumbs have been amputated (but are still present in the body bag) in order to obtain fingerprints.

No tattoos, scars, or moles can be seen on the body. The external genitalia are those of a normal female.

Puncture marks by a large-bore needle (1/4") are noted on the right cheek, the anterior chest and abdomen, right arm and both lower legs. These are consistent with the marks of an embalmer's trocar. Further evidence of embalming is the strong smell of formalin-like preservative about the body. No other evidence of injury is noted on careful examination of both anterior and posterior aspects of the body. In particular, the face, neck, and both forearms and hands are free from injury.

X-Ray Examination:

X-rays of the whole body before internal examination reveal no metallic fragments, and no evidence of recent or old bony injury.

Internal Examination:

The usual body incisions and scalp incision are used to expose and examine the viscera.

Body Cavities: The organs are normally located in their usual positions. They are discolored by decomposition and somewhat shrunken and reek of formalin. The pleural and peritoneal surfaces are smooth and without adhesions. Puncture marks (embalmer's trocar) are noted in most organs of the chest and abdomen.

Head: The skull is intact; no evidence of hemorrhage is seen in the scalp, or above or below the dura mater. The brain is soft, pasty, almost soupy but otherwise unremarkable.

Neck: The soft tissues are discolored. The hyoid bone and laryngeal cartilages are intact and without evidence of injury. The larynx and trachea are unremarkable.

Cardiovascular System: The heart appears to be normal sized; the coronary arteries are widely patent; the valves are normally shaped. The great vessels pursue their normal courses to and from the heart.

Respiratory System: The lungs appear normally shaped; no parenchymal lesions are seen; the tracheo-bronchial tree is patent and unremarkable.

Liver and Biliary Tract: The liver is intact though studded with a network of small holes owing to postmortem decomposition. The gallbladder is present and green-stained; the common bile duct is patent.

Gastro-intestinal Tract: The esophagus is unremarkable; the stomach is empty; the small and large intestines are in their usual positions and deflated by multiple punctures; the pancreas is difficult to recognize owing to postmortem decomposition: no lesions are noted in these organs.

Hematopoietic System: The spleen is unremarkable; lymph nodes are not enlarged; bone marrow is unremarkable.

Genito-urinary Tract: The uterus and both ovaries are present and unremarkable; there is no evidence of pregnancy. Occasional small cortical cysts are seen in the right kidney; the left kidney is unremarkable. The ureters pursue straight courses to the unremarkable bladder.

Endocrine System: The thyroid, pituitary, adrenals and ovaries are unremarkable.

Musculoskeletal System: No deformities or injuries are noted.

Specimens for Toxicology: Brain, stomach, liver kidney, spleen, and thigh muscle.

Microscopy: Representative sections from all organs except brain are examined: they all reveal advanced postmortem degeneration.

Summary and Opinion:

Postmortem examination of the body of Carolyn Moore (Layton) demonstrated advanced putrefaction and evidence of embalming. These findings are consistent with the circumstances at and after her death as reported or known to us. Morphological alterations sufficient to account for death were not seen. Toxicological examination (the specimens being taken about one month after death and about 2 weeks after embalming) revealed a mixture of phenothiazines, an anti-histamine and an anti-malarial present in the tissues at levels not thought to be lethal. Cyanide, although carefully searched for, was not recovered. This unfortunate lack weakens our argument (see below) but does not invalidate it if one keeps in mind the known rapid decline of cyanide levels after death.

In view of the above mentioned observations, the reports of seemingly reliable witnesses, the presence of cyanide in the stomach contents of at least some of the bodies studied at the scene by Dr. Mootoo, and the presence of apparently significant amounts of cyanide in other bodies studied at Dover AFB (as reported by the Toxicology Division of the AFIP), it seems reasonable to say that, in our opinion, the death of Carolyn Moore (Layton) was probably caused by cyanide poisoning. The manner of death, in our opinion, remains undetermined owing to the lack of reliable and specific information about her own intent and the possibility of coercion by others.

Robert L. Thompson
ROBERT L. THOMPSON, M.D.
Captain, MC, USN
Chairman, Department of
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K. H. Mueller
KENNETH H. MUELLER
LtCol, USAF, MC
Division of Forensic Pathology



PATIENT IDENTIFICATION	PLEASE USE AFIP ACCESSION NUMBER IN ALL CORRESPONDENCE
AFIP ACCESSION NUMBER: 1680344	
MOORE, CAROLYN L.	
PLEASE INFORM US OF ANY PATIENT IDENTIFICATION ERRORS	

ADDRESS REPLY TO THE DIRECTOR
ATTN: AFIP - CPL-T

18 April 1979

CONSULTATION REPORT ON CONTRIBUTOR MATERIAL

Specimens Submitted: Lung, kidney, brain, liver, spleen, stomach and teeth.

AFIP DIAGNOSIS:

REPORT OF TOXICOLOGIC EXAMINATION

1. All tissues submitted were putrefied; the body was embalmed prior to autopsy.
2. Acid, Neutral drugs - LIVER - None Found.
3. The following drugs were identified and quantitated by uv spectrophotometry or gas chromatography and verified by mass spectrometry. Amounts reported are in milligrams per 100 grams tissue.

	<u>STOMACH</u>	<u>LUNG</u>	<u>SPLEEN</u>	<u>KIDNEY</u>	<u>LIVER</u>	<u>BRAIN</u>
Diphenhydramine	0.98	0.02	0.02	0.03	0.54	0.02
Promethazine	1.31	0.02	0.04	0.19	0.70	0.05
Chlorpromazine	40.94	0.22	0.23	1.05	3.12	0.13
Chloroquine	NR	NR	NR	NR	8.3	NR

William W. Manders
 WILLIAM W. MANDERS
 LTCOL, USAF, BSC
 Chief, Division of Toxicology