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MEDICAL TOXICOLOGY DEATH REVIEW
LINDA ADANALIAN

CLINICAL PRESENTATION

The patient presented to the Fresno Community Hospital Emergency Department on the evening of February 11, 2000. Upon arrival at the ED, she noted chest pain, abdominal pain, and nausea/vomiting and diarrhea on the day of her death. The paramedic's initial findings show the patient was alert, but dyspneic with no recordable blood pressure. She was tachycardic with sinus rhythm. Physical examination revealed heme positive stool. The Glasgow Coma Scale chart shows a value of 15 at 2230 hours. Her extremities were cool to the touch and the patient reported numbness in her lower extremities. Approximately 15 minutes after hospital arrival, the patient suffered respiratory failure and was intubated. The patient's ET tube required suctioning. She developed ventricular fibrillation and subsequent asystole. She did not respond to intubation, CPR, and appropriate advanced cardiac life support measures. The initial EKG was markedly abnormal but in a nonspecific fashion. The patient was declared dead in the emergency department approximately one hour after arrival. The emergency physician felt that the patient died a cardiovascular death of uncertain primary etiology.

FORENSIC EVALUATION

1. Fresno County Coroner Autopsy Report: No gross or histological morphological explanation for sudden death. The autopsy report states that the right and left lungs weighed 1000 and 920 grams respectively, showing edema and congestion. All drug screens and analytical toxicological evaluations were negative.
2. Stanford Pathology Consultants (Post Mortem Examination of Heart): No morphological explanation for sudden death.
3. Armed Forces Institute of Pathology (Post Mortem Examination of Heart): No morphological explanation for sudden death.
4. Mayo Clinic (Post Mortem Examination of Heart): No morphological explanation for sudden death.

Certified as a Regional Poison Center by the American Association of Poison Control Centers.

FAMILY PYSICIAN AND CARDIOLOGY OPINIONS

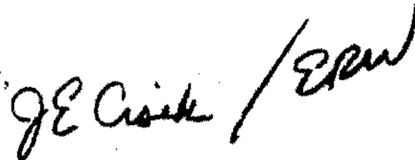
1. Steven Chooljian's evaluation of all data as of May 18, 2000: Cause of death unknown.
2. Nellis Smith's evaluation of clinical data dated March 5, 2000: Cause of death unknown.

According to Dr. Steven Chooljian's letter dated May 18, 2000, this patient had no cardiac risk factors. I agree with Dr. Nellis Smith's opinion that this patient's presentation is quite unusual and not consistent with a primary cardiac episode.

I have reviewed and interpreted the multiple laboratory results from National Medical Services laboratory, Baylor Toxicology Services, Mayo Medical Laboratories and Expertox. Based on the markedly elevated selenium levels and the available medical literature, it is my opinion that this patient's death was due to selenium toxicity. The independent confirmation of these elevated levels by different laboratories provides further support for my conclusion.

In summary, this patient's clinical presentation, postmortem anatomical findings, and markedly elevated selenium levels demonstrate that death was caused by selenium toxicity.

Sincerely,



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