An Autopsy Case of Heatstroke under the Influence of Anticholinergic Drugs

Sella Takei¹, Hiroshi Kinoshita^{2*}, Mostofa Jamal¹, Tadayoshi Yamashita¹, Etsuko Tanaka¹, Sachiko Kawahara¹, Takehiko Murase¹

¹ Department of Forensic Medicine, Faculty of Medicine, Kagawa University, Japan ² National Research Institute of Police Science, Japan

Abstract

A case of fatal heatstroke involving atropine, chlorpheniramine and pseudoephedrine is presented. Autopsy revealed congestion of lung and histological findings of hypercontracted fibers in skeletal muscle. **Ouantitative** toxicological analysis revealed concentrations of atropine and chlorpheniramine in femoral blood sample to be 0.02 μ g/mL and 0.30 μ g/mL, respectively, and both were below fatal levels. Pseudoephedrine was also identified, but not quantified. From the autopsy findings, results of toxicological examination and investigation by the authorities, we concluded that the cause of death was heatstroke under the influence of atropine and chlorpheniramine.

Keywords: atropine, chlorpheniramine, pseudoephedrine, heatstroke