



K12 The Death Pattern and Distribution of Toluene in Blood of Glue Sniffers

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After attending this presentation, attendees will have information about the types of death and the distribution of toluene following intoxication from inhalants.

This presentation will impact the forensic community and/or humanity by showing the death pattern and toluene blood concentration following intoxication from inhalants.

The blood toluene concentration was determined by using GC/MS with HS-SPME of postmortem blood, quantitatively. Fuel gases were analyzed using GC/FID with headspace technique in postmortem blood, qualitatively. Seventy-five cases of death associated with the inhalation of glue or fuel gases was reported in Korea over three years (1996-1998). In twenty-seven of the cases of death due to glue sniffing, nine persons died as a result of a fall while intoxicated and their blood toluene concentration was fairly high in the range of 1.3~21.6mg/mL (average 10.4mg/mL). However, nine persons who died suddenly due to glue sniffing showed low toluene blood concentration in the range of 0.5~22.6µg/mL (average 4.0mg/mL, only one case showed 22.6mg/mL, seven cases were below 2.0mg/mL). In cases of death due to fuel gas sniffing, fifty-four persons died of acute fuel gas inhalation or suffocation and six people who died due to sniffing fuel gases as well as glue.

Inhalation, Death Pattern, Glue-Sniffing