## **Excretion of Methamphetamine in Cases** of Methamphetamine-Related Death

Sella Takei<sup>1</sup>, Hiroshi Kinoshita<sup>2\*</sup>, Hiroko Abe<sup>3</sup>, Takehiko Murase<sup>1</sup>, Gentian Vyshka<sup>4</sup> and Bledar Xhemali<sup>5</sup>

Departments of Forensic Medicine Faculty of Medicine, Kagawa University, Japan
National Research Institute of Police Science, Japan
Bio Design Inc., Tokyo, Japan

<sup>4</sup> Biomedical and Experimental Department, Faculty of Medicine, University of Medicine in Tirana, Tirana, Albania <sup>5</sup> Department of Forensic Pathology, Institute of Legal Medicine, Tirana, Albania

## **Abstract**

**Background**: Methamphetamine (MA) is one of the most abused drugs, and MA abuse is a public concern in the world.

**Aims**: The present study compared MA excretion in urine, bile and stomach contents.

**Methods**: We present three cases of MA-related death.

**Results**: Toxicological examination revealed relatively high concentrations of MA in bile and urine. MA was also detected from stomach contents despite parenteral administration in each case.

**Conclusion**: Alongside urine, we should consider other postmortem samples such as bile or stomach contents as excretion routes.

**Keywords**: methamphetamine; abuse; alternative specimen; bile; stomach contents; urine

**Address for correspondence:** Hiroshi Kinoshita\*, National Research Institute of Police Science, 6-3-1, Kashiwa-no-ha, Kashiwa 277-0882, Japan. E-mail: kinochin7587@gmail.com