

Postmortem Analysis of Lidocaine in Women Died of Criminal Abortion

Authors : Mohammed A. Arishy, Sultan M. Alharbi, Mohammed A. Hakami, Farid M. Abualsail, Mohammad A. Attafi, Riyadh M. Tobaiqi, Hussain M. Alsalem, Ibraheem M. Attafi

Abstract : Lidocaine is the most common local anesthetics used for para cervical block to reduce pain associated with surgical abortion. A 25-year-old pregnant woman who. She died before reaching hospital, and she was undergoing criminal abortion during the first trimester. In post-mortem investigations and autopsy shows no clear finding; therefore, toxic substances must be suspected and searched for routinely toxicology analysis. In this case report, the postmortem concentration of lidocaine was detected blood, brain, liver, kidney, and stomach. For lidocaine identification and quantification, sample was extracted using solid phase extraction and analyzed by GC-MS (Shimadzu, Japan). Initial screening and confirmatory analysis results showed that only lidocaine was detected in all collected samples, and no other toxic substances or alcohol were detected. The concentrations of lidocaine in samples were 19, 17, 14, 7, and 3 ug/m in the brain, blood, kidney, liver, and stomach, respectively. Lidocaine blood concentration (17 ug/ml) was toxic level and may result in death. Among the tissues, brain showed the highest level of lidocaine, followed by the kidney, liver, and stomach.

Keywords : forensic toxicology, GC-MS, lidocaine, postmortem

Conference Title : ICFPT 2019 : International Conference on Forensic Pharmacology and Toxicology

Conference Location : Dubai, United Arab Emirates

Conference Dates : December 19-20, 2019