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282. Non-Ethanol hyperlipasemia in toxicology consultation

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Background: Elevated serum levels of lipase have been reported in critically ill patients. There are little data on hyperlipasemia associated with xenobiotics other than ethanol. We used the Toxicology Investigators Consortium (Toxic) database of the American College of Medical Toxicology to investigate which xenobiotics other than ethanol were associated with hyperlipasemia.

Methods: The Toxic database is a registry of patient bedside encounters seen by medical toxicologists. We searched for cases with hyperlipasemia, defined by lipase ≥ 100 U/L from May 2012 to April 2013. We excluded ethanol exposures, multiple and unknown xenobiotic exposures, and cases that were thought to be unlikely xenobiotic related.

Results: We found 107 hyperlipasemia cases in this database. Of these, 16 involved cases of non-ethanol single xenobiotic exposures whose symptoms were thought to be xenobiotic related. 56% were male, 62% between 19–65 years old, 56% of the exposures were intentional. Seven cases (44%) were acetaminophen exposures, 2 (12%) methamphetamine cases and 1 case each of colchicine, glyphosate, bath salts, lithium, diphenhydramine, methadone, and oxycodone. Hepatotoxicity (AST ≥ 1000 U/L) and significant coagulopathy (PT ≥ 15) were reported in the acetaminophen exposures. Acute kidney injury (creatinine ≥ 2.0), metabolic acidosis (PH ≤ 7.2), and coma were reported in acetaminophen, glyphosate, diphenhydramine, methamphetamine, and methadone cases.

Discussion: The most common xenobiotic found in this group was acetaminophen. Most of the patients were men between 19 to 65 years old. The majority of the exposures were intentional. The most common concomitant clinical problem was hepatotoxicity with acetaminophen exposure. The hyperlipasemia in many of these cases was likely related to multiorgan failure.

Conclusions: Non-ethanol related hyperlipasemia with a single xenobiotic exposure was observed in 15% of all hyperlipasemia cases found in the Toxic registry. Acetaminophen was the most common xenobiotic exposure in these subjects.