The histopathological changes of mice liver due to morphine administration

Abstract

**Background & Objective:** Morphine is an opioid analgesic and has known effects on different organs. This study was done to determine the histopathological changes of liver due to morphine administration in adult mice.

**Materials & Methods:** In this experimental study, 20 male Blab/c mice divided experiment and control groups. In experiment and control group, animals received 15mg/kg/day morphine and saline normal interperitoneally, for 21 days respectively. Day 22 the livers were dissected under anaesthesiology. Specimens were processed for histological study and stained with H&E.

**Results:** In experimental group, small sites of necrosis with polymorphic inflammatory infiltration and debris formation of necrotized nucleus in death area, so hepatitis was suggested. Also accumulation of micro droplets of lipid inside the hepatocyte cytoplasm without nucleus displacement (fatty damages with small vacuoles) observed in cases. In addition, microvesicular steatosis and mouth teeth necrosis in liver parenchyma with inflammation in the vein and portal space were seen in cases. Any changes was not seen in control group.

**Conclusion:** The interperitoneal administration of morphine can cause histopathological changes in mice liver.

**Key Words:** Mice- Morphine- liver- Hepatitis- Histopathological changes