

Lead Contaminated Opium as Unusual Cause of Abdominal Pain-Case Series

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Abstract

Background: Lead is a toxic metal which is widely distributed in the environment and can be accumulated in the many organs such as gastrointestinal system. Several clinical signs suggest lead poisoning include anemia, abdominal pain, constipation and/or neurologic signs. We report a case series of patients with abdominal pain due to lead contaminated opium who underwent diagnostic work up including plain abdominal radiograph and/or CT scan.

Methods: We hereby describe 119 consecutive patients hospitalized in our emergency department who presented with complains of acute, severe abdominal pain due to lead contaminated opium (September 2015 - October 2016). Upon admission they were first suspected to have lead poisoning due to their abnormal imaging findings. Demographic, clinical and laboratory data, imaging and levels of lead were collected for all patients.

Results: Of 119 enrolled patients, 116 subjects (97.5%) were male. The mean age of our patients was 50.4 ± 13.4 (18 - 92 years). They all had a history of oral consumption of opium on a daily basis. Half of the patients had a history of several hospitalizations. One also had a history of a negative laparotomy. Several tiny metallic densities were visualized in the colon in the obtained plain abdominal radiographs that were confirmed in CT scan in some patients. Laboratory data revealed anemia in majority of them with mean hemoglobin 10.4 ± 2.4 g/dL. Mean blood lead level was 76.2 fL (range 20 - 316). Serum lead level was classified into four levels: lead level < 50 fL (n = 42; 35.3%), 50 - 79.9 (n = 37; 31.1%), 80 - 100 (n = 15; 12.6%), > 100 (n = 25; 21.0%). All patients were referred to psychiatrist for quitting opium.

Conclusions: Our case series highlights the role of imaging in possibility of lead poisoning among opium users, that presented with acute abdominal pain with an unknown cause.

Keywords: Lead Poisoning, Opium, Abdominal Pain

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