[ID-P#094] Lead Poisoning in a Patient with Retained Bullets from a Shotgun Wound

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Background: Lead poisoning (LP) can result from acute or chronic exposure, leading to its accumulation in the body. Sources of exposure include occupational, environmental, and accidental incidents.

Case: A 32-year-old Thai man was shot in the left leg and ankle with a shotgun in 2019. The bullets were retained and not surgically removed at that time. Six months ago, he began experiencing chronic abdominal pain and fatigue. He had multiple hospital visits and was treated for chronic abdominal pain. During his last admission, he was hospitalized for anemia of unknown cause, with his hematocrit dropping from a baseline of approximately 30% to 22%. A peripheral blood smear showed basophilic stippling. An X-ray of his left ankle revealed multiple metal radio-opacities. His blood lead level (BLL) was found to be 198.55µg/dL. He developed altered mental status and was diagnosed with lead encephalopathy. Chelation therapy was initiated with BAL and CaNa2EDTA, along with blood transfusions. An orthopedic consultation was sought for the surgical removal after chelation. After completing two courses of therapy and undergoing surgical removal of the bullets, an X-ray still showed multiple small radio-opacities. His BLL decreased to 34.02 µg/ dL.

Conclusion: The patient has continued clinical follow-up and monitoring of BLL. He has undergone six courses of chelation therapy to date. The number of chelation courses required for such cases is not clearly defined. In this case, treatment is based on the patient's clinical manifestations and blood lead levels. This case highlights the complexities in managing lead poisoning from retained bullets and underscores the importance of ongoing monitoring and individualized treatment plans based on clinical symptoms and BLL measurements.