

Blood smear and radiographic images from a 44 year old man with chronic abdominal pain, a hemoglobin of 6.6 and an MCV of 67. What is the diagnosis?

Further history disclosed a retained bullet fragment in his right thigh 2 years previously. Radiographic views of his right thigh affirmed several metallic bullet fragments and posttraumatic soft tissue calcification and ossification. Computed tomography with 3-D reconstruction (panel B) showed a large calcified mass of the thigh, consistent with a complex hematoma.

Lead levels were as high as 306 μ g/dL. The patient was started on intramuscular EDTA for chelation. The bullet fragments were surgically removed without complications and the patient was discharged on oral dimercaptosuccinic acid for 2 weeks. Currently, 3 years later, he is asymptomatic with a normal complete blood count (hemoglobin 14.4 g/dL, mean corpuscular volume 86.4 fL), undetectable lead levels, and subsequent peripheral smears that no longer demonstrate any basophilic stippling.

Basophilic stippling was the clue to the underlying diagnosis. Several reports have already described lead toxicity from retained bullets. (The orthopedic aspects of this case were previously reported in Dougherty PJ, van Holsbeeck M, Mayer TG, Garcia AJ, Najibi S. Lead toxicity associated with a gunshot-induced femoral fracture. A case report. *J Bone Joint Surg Am.* 2009;91(8):2002–2008.)