Regarding “Long-term lead elimination from plasma and whole blood after poisoning”

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Dear Editor,

I read with interest the recent study conducted by Rentschler et al. published in your journal (Rentschler et al. 2011). I have a few questions regarding the diagnosis, severity of poisoning, as well as the treatment of their cases.

Can they provide more details about the diagnosis of lead poisoning in their patients? As we know, acute high-dose exposure to lead may sometimes be associated with transient azotemia and mild to moderate elevation in serum transaminases (Kosnett 2007; Henretig 2011). Did the authors check blood urea nitrogen, creatinine, and serum transaminases in their cases? Did the patients have basophilic stippling of erythrocytes in addition to the anemia?

I had another concern about the severity of poisoning in their cases; since severely lead-poisoned patients usually present with encephalopathy, abdominal colic, nephropathy, foot/wrist drop, etc. (usually, blood lead level > 100 µg/dL) (Kosnett 2007; Henretig 2011), why do the authors believe that their patients had severe toxicity?

The authors have mentioned that in all subjects, the symptoms and signs disappeared during the initial part of the follow-up; Was the improvement with or without chelation therapy? It seems that the patients have not received therapy. Is it correct?

As we know, chelation therapy is indicated for adults with significant symptoms (encephalopathy, abdominal colic, severe arthralgias, or myalgias) and evidence of

target organ damage (neuropathy or nephropathy), and possibly in asymptomatic workers with markedly elevated blood lead level and/or evidence of biochemical toxicity or increased chelatable lead (Saryan and Zenz 1994; Romeo et al. 1996; Seward 1996). If the authors believed that their patients were severely poisoned, why did they not initiate chelation therapy for them?

If the patients' poisoning was not so severe, why the authors concluded that plasma lead had been about 20 µg/L at severe poisoning? I think, with respect to the patients' clinical manifestations and blood lead levels [median blood lead level at first sampling was 790 (520–1,600) µg/L], their cases had mild to moderate poisoning (not severe) (Kosnett 2007; Henretig 2011), and their conclusion seems not to be correct. Thanks for this interesting study.

Conflicts of interest None.

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