



Arsenic, Old Lace, and Crab Cakes?

A middle-aged man presents one afternoon to your outpatient primary care clinic. He is complaining of nausea, diarrhea, muscle weakness, and watery eyes. He states that his symptoms began about two months ago and since that time he has lost ten pounds. His physical exam is unremarkable with the exception of some mild weakness in his extremities. Baffled, you decide to order a battery of tests which return generally normal except for a slightly decreased white blood cell count. However, you are alarmed by the results of his heavy metal urine screen: his urinary arsenic measures 500 mcg/L!

Should this patient start chelation therapy? Some guidelines recommend chelation for patients with spot urine levels of greater than 200 mcg/L. However, as seafood-loving coastal community residents should be aware, all arsenic is not poison. Various species of seafood contain the organic arsenical arsenobetaine, which is considered nontoxic. Arsenosugars are present in many crustaceans and in seaweed. Typically, less than one percent of arsenic in seafood is in the form of toxic inorganic arsenic.

Recent seafood ingestion can elevate urinary arsenic levels up to 200-1700 mcg/L. Some reference laboratories can perform speciation testing to differentiate between organic and inorganic arsenic, but unless acute arsenic exposure is suspected, patients can simply be retested after abstaining from seafood for one week. Furthermore, true diagnosis of arsenic toxicity hinges on the analysis by a reputable laboratory of a 24-hour urine collection in a *metal-free* container. Chelation is then considered for levels of 50 mcg/L, or 100 mcg/g creatinine, or 100 mcg total arsenic in the 24-hour urine specimen.

The moral of the story? Come to Baltimore this summer and enjoy our crab cakes but call the Maryland Poison Center at **1-800-222-1222** before starting any chelation therapy!

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DID YOU KNOW THAT..... Several Strattera® (atomoxetine) overdoses have been reported to the Maryland Poison Center?

Strattera® is the first selective norepinephrine reuptake inhibitor (SNRI) approved for the treatment of ADHD. Effexor® (venlafaxine) is another SNRI currently being marketed for depression and anxiety. There is little information on overdoses of Strattera, but based on clinical effects reported with Effexor® overdoses, patients should be observed for lethargy, seizures, hypotension or hypertension, tachycardia, QRS prolongation and QT prolongation.



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