Correspondence

Can one get amnesia from canned tuna?
What are we forgetting?

The assertion in the Case Report by Roger Ho and colleagues (Jan 24, p 352) that methyl mercury (MeHg) exposure from a daily diet of tuna is responsible for amnesia is problematic toxicologically and clinically. The lowest level reported for adult manifestations of MeHg exposure is 200 μg Hg per L whole blood. That level is used by most national regulatory committees. The blood Hg level of the patient in the Case Report was 28 μg/L. This is equivalent to a hair level of about 5.5 μg/g (ppm). In populations that consume fish regularly, this level is commonly seen: one study in the Seychelles found the mean maternal hair level to be 6.9 μg/g. There were no reports of memory loss.

Additionally, neurological deficits from MeHg poisoning are permanent, yet Ho and colleagues’ patient improved. The concomitant reduction from MeHg poisoning, and found that the blood mercury concentration ranged from 0.8 μg/L to 10 000 μg/L. The mercury concentration of our patient was 28 μg/L after 6 weeks’ delay in blood testing. It is well known that urine and blood levels of mercury correlate poorly with clinical and neurological findings.

Myers and colleagues’ assumption that memory loss is not a manifestation of methylmercury toxicity reflects a lack of understanding of the pathophysiology of mercury toxicity. In an animal study, Fischer and colleagues found that methylmercury led to impaired memory abilities, and the mechanism for cognitive defects was shown to involve the cholinergic system. Clinicians need to be clinically versatile and prepared to anticipate uncommon yet clinically relevant presentations of mercury poisoning, such as attention deficit and hyperkinetic disorder in children.

Patients with mercury poisoning can present with atypical findings and clinicians should not be surprised about its abundance and new applications. Holding a rigid view of the presentation of mercury poisoning and ignoring its multifaceted nature will create therapeutic nihilism.

We declare that we have no conflicts of interest.

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