Pink ladies: mercury poisoning in twin girls

Previously well, developmentally normal 20-month-old twin girls presented with weakness, anorexia, a poplar rash and increasingly swollen, red and painful hands and feet of 1 month’s duration. They had no history of fever, conjunctivitis, lymphadenopathy or oral changes characteristic of Kawasaki disease. The children appeared irritable and were diaphoretic but afebrile. Both had tachycardia, and one had an elevated blood pressure of 130/90 mm Hg (95th percentile for age 108/62 mm Hg). Both children had reduced muscle power and diminished reflexes. Their palms and soles were erythematous and indurated with desquamation, judged to be acrodynia (Figs.1 and 2).

Mercury toxicity was suspected, and further questioning revealed that the infants had been given a mercury-containing “teething powder” from India once or twice a week over the 4 preceding months. The girls’ blood mercury levels were 176 and 209 (normally < 18) µmol/L. Chelation therapy with 2,3-dimercaptosuccinic acid was administered through nasogastric tubes. Before admission the twins had regressed developmentally and were unable to feed orally, sit or walk. Over the 8 weeks in hospital they showed some minor neurocognitive improvements, but their long-term prognosis is uncertain.

Clinical presentations suggestive of pheochromocytoma (e.g., excessive sweating, tachycardia and hypertension) or of Kawasaki disease but not meeting the full criteria would also prompt consideration of mercury toxicity. Although rash, oral mucosa and extremity changes are features of both Kawasaki disease and mercury toxicity, patients with the latter do not have a fever. Rash and extremity changes are not features of pheochromocytoma. The peeling of the skin on the extremities seen in cases of Kawasaki disease often occurs 1–3 weeks after presentation, as opposed to occurring concurrently with the rash and other findings in cases of mercury poisoning. Mercury poisoning is confirmed by measuring levels in blood, urine or hair samples.

The most important step in the management of mercury poisoning is eliminating the source of exposure. The effectiveness of chelation therapy in reversing symptoms is not entirely clear.6

Our case stresses the potential harm of mercury. It reminds us to think of a toxic exposure when family members present with the same unusual constellation of symptoms. It also highlights the common misconception that all alternative medicines are safe and benign.9

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References
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