A CASE REPORT OF CHRONIC MERCURY POISONING IN A YOUNG FEMALE WITH HUMAN IMMUNODEFICIENCY VIRUS INFECTION

Surjit Singh; Shankar Naidu, **Ashish Bhalla**

Department of Internal Medicine, Postgraduate Institute of Medical Education and Research, Chandigarh. 160012

Objectives: To present an unusual case of possible homicidal mercury poisoning in a HIV positive female.

Case report: 27 year old female was symptomatic for last 1 year with recurrent episodes of redness, scaling and itching of the skin over face, neck, trunk and limbs associated with swelling over hands and feet. She developed small bowel type of diarrhea associated with vomiting and pain abdomen for last 1 month. She also developed moderate to high grade fever for last 1 month. She had 2 episodes of generalized tonic clonic seizures 2 weeks prior to admission in our institute. On examination patient was irritable but oriented and responding to verbal commands. She had mild tachycardia (104 beats/minute) and respiratory rate of 24 per minute. Patient had diffusely hyperpigmented skin with edematous and erythematous hands and feet suggestive of acrodynia. Neurological examination revealed distal motor weakness in right upper limb and bilateral lower limbs with preserved sensations. Rest of the systemic examination was unremarkable. She had mild leucocytosis, hypernatremia (serum Na-162meq/l) with normal renal functions and elevated SGOT, lactate dehydrogenase (LDH) and creatinine phosphokinase (CPK) levels. Her chest radiography showed multiple radio-opaque tiny shadows in the lungs fields and HRCT chest showed these radio- opaque densities to be distributed in the pericardium and along the pericardial vessels. Plain radiography of forearms showed linear radio-opaque lesions over the right hand and middle forearm suggestive of deposition in the vessel wall. On retrospectively enquiring patient revealed that she received intravenous injections of unknown composition few weeks prior to onset of her symptoms. Patient was found to be HIV ELISA positive during hospital stay with CD4 count of 48 cells/ul. Her cerebrospinal fluid analysis and stool analysis did not reveal any evidence of infections. MRI brain was done for cause of seizures but no pathology could be identified. Nerve conduction studies were suggestive of sensorimotor axonal neuropathy. With a suspicion of chronic mercury poisoning, serum mercury levels were estimated, which were elevated (418ug/l) which confirmed the diagnosis of mercury toxicity. Skin biopsy and transbronchial lung biopsy did not show deposition of mercury globules in these tissues. Patient persisted to have fever with elevated serum procalcitonin (7.52ng/ml) and later during hospital stay developed hypotension for which inotropic support with three drugs was given along with broad spectrum IV antibiotics. However, patient persisted to have shock and developed acute kidney injury and altered mentation for which renal replacement therapy was initiated but patient further worsened and expired on day 18 of admission.

Conclusion: Injectible elemental mercury poisoning is rare and this case stresses the need to be vigilant about homicidal heavy metal poisoning in susceptible individuals.