

Abstract Title: Pan hypopituitarism by Manganese Brain Intoxication during Long-Term Parenteral Nutrition

Márcia Tanaka (Hospital Israelita Albert Einstein, Brazil), Maria T. Zanella (UNIFESP, Brazil), Adriano O. Seixas (Hospital Israelita Albert Einstein, Brazil), Juliana Bernardo Barban (Hospital Israelita Albert Einstein, Brazil), Silvia M.F. Piovacari (Hospital Israelita Albert Einstein, Brazil), Ana Paula N. Barrere (Hospital Israelita Albert Einstein, Brazil), Fabiana Lucio (Hospital Israelita Albert Einstein, Brazil), Juliana Moura Nabarrete (Hospital Israelita Albert Einstein, Brazil), Nelson Hamerschlak (Hospital Israelita Albert Einstein, Brazil), Andrea Z. Pereira (Hospital Israelita Albert Einstein, Brazil) .

BACKGROUND: Manganese (Mn) is an essential trace element, a constituent of parenteral nutrition (PN). However, long-term PN administration can be toxic to the brain, and there are few studies about Mn intoxication. Most of them has shown that brain deposition and some neurologic symptoms, mainly parkinsonism, as a result of Mn administration in PN. This intoxication is diagnosed by Magnetic Resonance Imaging (MRI).

HYPOTHESIS: Describe a case report of manganese toxicity in adult receiving long-term parenteral nutrition.

METHODS: Case report of an adult patient, male, 34 years old, receiving long-term parenteral nutrition with 0.4 mg Mn /day, from August 2014 to March 2015. He had severe Crohn's disease, XIAP Mutation. Hematopoietic stem cell transplantation (HSCT) was considered as a treatment due to severity of his disease. In March 2015, the patient had several episodes of hypoglycemia during the day. His serum level of cortisol, testosterone, thyroid hormones were low. Brain MRI showed high spontaneous signal on T1 of the globus pallidus and substantia nigra more tenuous, midbrain tectum, higher brain pedunculcos, pontine tegument, dentate nucleus and anterior pituitary, bilateral and symmetrical.

RESULTS: The patient was diagnosed of Pan Hypopituitarism caused for Mn brain intoxication. The Mn was excluded of PN. He was undergoing HSCT in April 2015, in Bone Marrow Transplantation Division, S.Paulo, Brazil. In addition, he didn't have any HSCT complications. Although Mn brain intoxication isn't an usual disorder in long-term parenteral nutrition, we must remember and monitor it in our patients.