

Question 7 – September 12

A 29 year old woman with history of short gut syndrome due to several bowel resections for inflammatory bowel disease, who has been maintained on TPN for 8 years, presents with resting tremors and muscle rigidity. She has no fevers or chills. She also has history of primary sclerosing cholangitis. Which of the following should be considered in differentials of work up?

- A. Manganese toxicity
- B. Cholangitis
- C. Zinc Toxicity
- D. Selenium deficiency

Answer: A

Hypermanganesemia can be seen in chronic TPN patients and sometimes with shorter duration TPN as well. Manganese deposition especially in chronic cholestasis patient can present with Parkinson's like symptoms.

Reference:

Ono, Jiro, et al. "Manganese deposition in the brain during long-term total parenteral nutrition." *Journal of Parenteral and Enteral Nutrition* 19.4 (1995): 310-312.