Zinc Deficiency in Humans

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I received my training in internal medicine and hematology at the University of Minnesota under Dr. C.J. Watson. After completion, I joined Dr. Hobart A. Reimann, visiting professor and chief of medicine at the Nemazee Hospital of Pahlavi University, Shiraz, Iran. Soon after my arrival in Shiraz, Dr. James A. Halsted (a Fulbright Professor) brought to my attention a 10-year-old male patient with the syndrome of iron deficiency anemia, hepatosplenomegaly, dwarfism, and hypogonadism.

The first conclusive evidence that zinc deficiency in humans occurred was presented in this article. This conclusion was based on the following: The zinc concentration in plasma, red cells, and hair was decreased, and 65Zn studies revealed that the plasma zinc turnover rate was greater, the 24-hour exchangeable pool was smaller, and the excretion of 65Zn in stool and urine was less in the zinc-deficient dwarfs than in the control subjects. (The SCI® indicates that this paper has been cited in over 315 publications.)