Mineral Requirements in Children with Chronic Liver Disease

Rezaeian A[1],[*]Ghayebi E[2], Yazdan Panah MT[3],Rahmanian Gh[3], Golestani A[3]

[1] MSc. in Pediatric Nursing, Membership of Scientific Board of Faculty of Nursing and Midwifery, Mashhad university of Medical Science, Mashhad, Iran.
[2] MSc. in Pediatric Nursing, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran.
3 Ghaem Hospital, Mashhad University of Medical Sciences, Mashhad, Iran.

Introduction:
Decreased oral intake or impaired function / structure in the gut, such as hypertension port associated with atrophic changes in the protein nutrition - calories can lead to micronutrient deficiencies.This paper examines the status of micronutrients in chronic liver disease in children.

Materials and Methods:
In this review study databases including proquest, pubmedcentral, scincedirect, ovid, medlineplus were been searched with keyword words such as" chronic liver disease"" minerals""children" between 1999 to 2014. Finally, 3 related articles have been found.

Results:
In chronic liver disease changes in micronutrient metabolism lead to changes in the daily requirements, such that in certain circumstances intake increasing or decreasing is needed.
Low serum **calcium** and **phosphate** concentrations are often the reflection of malabsorption-induced bone disease that is unresponsive to vitamin D store normalization. **Iron** is usually deficient in children with CLD and supplementation frequently needed. The origin of iron deficiency is multifactorial and includes ongoing losses, inadequate intakes, serial blood draws and malabsorption secondary to hypertensive enteropathy.
Zinc plays an important role in cognitive function, appetite and taste, immune function, wound healing, and protein metabolism. Low plasma zinc levels are frequent in children with chronic cholestasis, but unfortunately plasma concentrations are not reflective of total body zinc status.
Copper and manganese, unlike other minerals, are increased in CLD, because they are normally excreted through bile. Parenteral nutrition in cholestatic patients can induce manganese intoxication and accumulation in basal ganglia.

Conclusion:
In fants with CLD are prone to multiple nutritional deficiencies. Mineral state should be evaluated, treated and reevaluated, until sufficient daily requirement achieved.
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[*]**Corresponding Author:**
Ghayebi E, Pediatric Nursing, Faculty of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran. Email: Ghayebi E@mums.ac.ir