

ESPEN 2015 Abstract Submission

Topic: Paediatrics

Abstract Submission Identifier: ESPEN15-ABS-1404

MICRONUTRIENTS IN PEDIATRIC HOME PARENTERAL NUTRITION

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If you think another topic than the one selected at first would suit your abstract, please choose below: Vitamins, antioxidants and minerals

Presentation Method: Oral or Poster presentation

Please indicate your professional occupation: Dietitian

The presenting author fulfills the above conditions and wants to apply for a travel award: No

Rationale: Since 1999 the Emma Children's Hospital/AMC is supporting paediatric patients HPN.

Diagnoses are short bowel syndrome, pseudo-obstruction and microvillus inclusion disease.

Methods: Lab results of 19 patients (Jan13 - Dec14) were retrospective observational analysed.

Patients were included if there were at least 2 values of required micronutrients. In addition, literature was reviewed in order to evaluate the outcome.

Results: 19 children (0-18 y, 12 boys) were included. Micronutrient deficiencies detected: 36% Vitamin A (norm 1,2-2,7 umol/l) , 78% Vitamin D (norm 75-250 nmol/l 25OH Vitamin D2-D3) , 26% Vitamin E (norm 15-35 umol/l), 5% Copper(norm 10.2-26 umol/l), 5% Zinc (norm 11-24 umol/l), 68% Iron (norm 11-32 umol/l) and 5% Manganese (norm 10-180 umol/l). No Selenium deficiency.

The literature search failed to find the recommended amounts of IV micronutrients requirements, especially in non-healthy children. In long term TPN selenium, iron and vitamin D deficiency is mostly present.

Conclusion: Standard vitamin and trace element supplementation to PN does not always cover the needs of the patients. Regular evaluation of micronutrient status is advised every 6 months in stable patients. Extra evaluation of specific nutrients is recommended in case of intercurrent problems which could cause micronutrient deficiencies. Supplementation of micronutrients next to the standard solutions in the parenteral nutrition is necessary whenever a deficit is detected.

Disclosure of Interest: None Declared

Keywords: micronutrients, pediatric home parenteral nutrition