

RESULTS OF AN ERNICA* SURVEY ON SOLID FOOD WEANING, PRO- AND ANTI-BIOTIC USE AND GLP- 2 ACCESS IN SHORT BOWEL SYNDROME (SBS) INFANTS MANAGED BY SPECIALIST INTESTINAL FAILURE (IF) REHABILITATION CENTRES.

S. Hill ¹, S. Macdonald ¹, G. Verlato ², C. F. Jonkers - Schuitema^{*, 3}, R. Pulvirenti ², E. Dugelay ⁴, D. Guimber ⁵ and ERNICA (European Reference Network for rare Inherited and Congenital Anomalies) Intestinal Failure Group

¹Great Ormond Street Hospital, London, United Kingdom, ²Department of Woman and Child's Health, University Hospital of Padova, Padova, Italy, ³Amsterdam University Medical Center, Amsterdam, Netherlands, ⁴CHU Paris - Hôpital Robert Debré, Paris, ⁵Department of Pediatrics, Centre Hospitalier Régional Universitaire de Lille, Lille, France

Rationale

The primary aim of IF management is to wean patients off parenteral nutrition (PN) whilst maintaining appropriate weight gain and growth. There is a paucity of evidence in the literature as to the best methods to achieve this. The aim of this study was;

- 1) To ascertain how European multidisciplinary IF centres introduce solid food in infants with SBS receiving PN
- 2) To look at other supportive treatments used that may aid this process

Methods

A questionnaire developed by the ERNICA group on infant weaning strategies in SBS associated IF was sent to 14 IF centres in 9 European countries. Questions included: age food is introduced and weaning strategies employed. In addition centres were asked about other strategies that could potentially affect the outcome; whether they used pro- and/or anti-biotics, whether they routinely checked for small intestinal bacterial overgrowth (SIBO) and whether they had access to GLP-2 as a treatment



Results

- All 14 centres introduced solid food by 6 months of age, irrespective of the degree of PN dependence.
- 2/14, 14%, used a dedicated protocol
- 9/14, 68%, centres food introduced varied according to remaining small intestinal length, presence/absence of ileo-caecal valve and/or colon resected.
- 5, 35%, initially introduced a single food/food group: 3 starch, 2 vegetable based.
- 9, 64% centres introduced food combinations: 5 starch + vegetables, 2 starch + vegetables + meat, and 2 vegetables + fruit.
- 11, 78%, centres advised avoidance of certain foods.
- 6 centres, 42% routinely used probiotics whilst 4, 28% never did so.
- 6, 42% centres routinely used antibiotics.
- 13/14, 92% investigated for SIBO
- 8/13, 61% measured blood D-lactate.
- 7/14, 50% centres had access to GLP-2 treatment.

References

1. Hill, s et al.. ESPGHAN/ESPEN/ESPR/CSPEN guidelines on pediatric parenteral nutrition: Home Parenteral Nutrition. Clin Nutr 37 (2018) 2401-2408.
2. Hill, s. Practical management of home parenteral nutrition in infancy. Early Human Development 138 (2019)



Conclusions

- All the specialist IF rehabilitation centres introduced solid food at the recommended age, which should limit later feeding difficulties.
- However there was no consensus as to which foods were best to introduce first and which foods, if any, should be excluded from the diet.
- There was a similar lack of concordance as to other adjunctive tests and treatments.

As diet helps with the process of weaning PN it is recommended that a multicentre European study is needed to elucidate the best weaning strategy for SBS infants.

Acknowledgments

we thank all centers of ERNICA who answered the questionnaire and contributed with their answers to this important work Padua GOSH, Amsterdam UMC, CHU Lille, Robert Debré, Radboud UMC, Rigshospitalet Copenhagen, Oslo University Hospital, H. C. Andersen Children Hospital Odense, Helsinki University Children's Hospital, Karolinska University Hospital University Medical Centre Mannheim, Erasmus MC, Hopital Necker Enfants Malades