Management of pediatric Crohn’s disease using exclusive enteral nutrition the Indian subcontinent

Background: Exclusive Enteral Nutrition (EEN) is a well-established primary therapy for Pediatric Crohn’s disease (CD). In the Indian sub-continent, there are no pediatric studies published till date.

Aim: To assess the outcome of EEN and to compare the therapeutic efficacy of polymeric formula (PF) vs semi-elemental formula (SEF) to maintain clinical remission in the pediatric CD.

Method: Children commenced on EEN for an active CD from March 2012 to March 2018 were enrolled. The Cohorts were assessed nutritionally and their disease activity measured using Pediatric Crohn’s Disease Activity Index (PCDAI). Formula selection was based on the target calorie requirement and tolerance of the individual. EEN was considered successful if clinical remission was achieved as defined by Pediatric Crohn’s Disease Activity Index (PCDAI) score, increase in weight and subjective well being of the child at the end of EEN therapy. Data measured at baseline and after 8 weeks of therapy.

Results: Thirty-five children were enrolled, 20 children were treated with SEF and 15 with PF orally. At the onset of therapy, 42.8% were well nourished and 57.1% children were underweight. One child relapsed from both the cohorts within a year. A mean increase of 4.1kg weight was seen in children using SEF and 4.01 kg in children using PF. At the end of therapy, 91% were well nourished and 8.5% of children were underweight. PCDAI differences were seen in all patients and an improvement was noted. In patients who achieved complete remission, weight for height improved significantly between the commencement and end of treatment with EEN. Significant weight gain in both the groups (P<0.05) at the end of therapy.

Conclusion: EEN using either formula was effective in inducing clinical remission in an active pediatric CD with no systemic side effects. Differences in nitrogen sources of enteral feeds are not relevant to their therapeutic efficacy.

Biography

Lekha Sreedharan has 20 years of experience as a Clinical Dietitian. She is the Senior Clinical Dietitian at Apollo Children’s Hospitals, India. She has completed Masters in Food and nutrition and certificate course in pediatric nutrition. Currently pursuing Doctor of Philosophy in Clinical Nutrition at Bharathiar University, India and the area of research in Pediatric Crohn’s Disease. She is involved in implementing the systems and protocols to ensure best clinical practices in Paediatric Nutrition in her hospital. She has presented papers at various national and international forums. She has published articles in newsletters. Nutrition in disease Management (update series) and has Co-authored the chapter Diet in Luminal Gastrointestinal Disorders in Nutrition and Diet for children—Simplified. She has also been involved in the release of Apollo Clinical Nutrition Manual for adults and Paediatrics, and Dietitians Pocket Books on Basics of Clinical Nutrition for Adults, Pediatrics and Beyond the Basics.

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