

Paediatric bronchology: next generation

Paediatric bronchology

OA-68894 - The effect of nutritional parameters on the prognosis of childhood interstitial lung diseases

Nagehan Emiralioglu ¹, Tugba Ramasli Gursoy ², Matthias Griese ³, Elias Seidl ³, Nicolaus Schwerk ⁴, Julia Carlens ⁴, Martin Wetzke ⁴, Steve Cunningham ⁵, Joanna Lange ⁶, Katarzyna Krenke ⁶, Zsolt Szepefalusi ⁷, Florian Stehling ⁸, Winfried Baden ⁹, Susanne Hämmerling ¹⁰, Silvija-Pera Jerkic ¹¹, Marijke Proesmans ¹², Nicola Ullmann ¹³, Deborah Snijders ¹⁴, Frederik Buchvald ¹⁵, Antonio Moreno Galdo ¹⁶, Nadia Nathan ¹⁷, Ralph Epaud ¹⁸, Andy Bush ¹⁹, Ayse Tana Aslan ², Nazan Cobanoglu ²⁰, Nural Kiper ¹

(1) Hacettepe University Faculty of Medicine, Department of Pediatric Pulmonology, ANKARA, Turkey; (2) Gazi University Faculty of Medicine, Department of Pediatric Pulmonology, ANKARA, Turkey; (3) Department of Pediatrics, Dr. von Hauner Children's Hospital, University Hospital, LMU Munich, German Center for Lung research (DZL), Munich, Germany; (4) Clinic for Pediatric Pneumology, Allergology, and Neonatology, Hannover Medical School, Hannover, Germany; (5) Department of Child Life and Health, University of Edinburgh, Edinburgh, United Kingdom; (6) Department of Pediatric Pneumology and Allergy, Medical University of Warsaw, Warsaw, Poland; (7) Division of Paediatric Pulmonology, Allergy and Endocrinology, Department of Paediatrics and Adolescent Medicine, Comprehensive Centre of Paediatrics, Medical University of Vienna, Vienna, Austria; (8) Pediatric Pulmonology, Children's University Hospital Essen, University of Duisburg-Essen, Essen, Germany; (9) Universitätsklinik für Kinder- und Jugendmedizin Tübingen, Hoppe-Seyler-Str. 1, 72076, Tübingen, Germany; (10) Division of Pediatric Pulmonology, Allergy and Cystic Fibrosis Center, Department of Pediatrics, University of Heidelberg, Heidelberg, Germany; (11) Department for Children and Adolescents, Division of Allergy, Pneumology, and Cystic Fibrosis, Goethe University Frankfurt, Frankfurt, Germany; (12) Division Woman and Child, Dept of Paediatrics, University Hospitals Leuven, Leuven, Belgium; (13) Pulmonology and Cystic Fibrosis Unit, Bambino Gesù Children's Hospital, IRCCS, Rome, Italy; (14) Department of Woman and Child Health, University of Padova, Padova, Italy; (15) Copenhagen University Hospital, Pediatric Pulmonary Department, Copenhagen, Denmark; (16) Pediatric

Pulmonology Section, Hospital Vall d'Hebron, Universitat Autònoma de Barcelona, Barcelona, Spain; (17) Pediatric Pulmonary Department, Reference center for rare lung diseases and Laboratory of childhood genetic diseases Inserm UMR_S933; Sorbonne University and AP-HP, Armand Trousseau Hospital, Paris, France; (18) Center for Rare Lung Diseases (RespiRare), Centre Hospitalier Intercommunal of Créteil, University Paris Est Créteil, INSERM, IMRB, Créteil, France; (19) Department of Respiratory Medicine, Imperial College and Royal Brompton Hospital, London, United Kingdom; (20) Ankara University Faculty of Medicine, Department of Pediatric Pulmonology, Ankara, Turkey

Background-Aim: Data on malnutrition in childhood interstitial lung diseases (chILD) are scarce. We aimed to evaluate malnutrition in chILD and to investigate factors leading to poor nutritional status.

Methods: Data source Kids Lung Register. From baseline and follow-up data we analyzed nutritional parameters, severity scores, treatment modalities, PFT data (ppFEV1 and ppFVC) and disease severity (using Fan severity score).

Results: Data of 3,334 register visits from 759 children were included. At baseline, 94/759 children (12%) had PEG/fundoplication. For children <2 years, at baseline, malnutrition was present in 144/326 (44%) individuals. Among these children, the most common ILD categories were DPLD: related to alveolar surfactant region (n=38, 26%), growth abnormalities deficient alveolarisation (n=28, 19%), and infant conditions of undefined etiology (n=26, 18%). At one year follow up, malnutrition decreased to 32/144 (22%) children. Disease severity was higher in patients with malnutrition (p<0.001). For children >2 years, at baseline, malnutrition was present in 157/427 (37%) children. The most common ILD categories in these children were DPLD: related to alveolar surfactant region (n=49, 31%), exposures (n=26, 17%), and systemic disease processes (n=26; 17%). At one year follow up, malnutrition decreased to 90/365 (25%) children. Lower ppFEV1 (p<0.001), ppFVC (p<0.001) and disease severity (p=0.047) were correlated with malnutrition.

Conclusion: Malnutrition is common in chILD. Further studies are needed to determine if early nutritional intervention improves the prognosis of patients with child (CRC chILD-EU).

Keywords: Children, Orphan diseases

