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ABSTRACTS

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DIETARY INTAKES IN CHILDREN AND ADOLESCENTS WITH INFLAMMATORY BOWEL DISEASE: A CASE-CONTROL STUDY

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Objectives and Study: Nutrition is involved in many aspects of Inflammatory Bowel Disease (IBD) including aetiology. Adult IBD studies have identified animal protein and Omega 6 lipids as risk factors for Crohn's Disease (CD) and Omega 3 lipids as protective factors for Ulcerative Colitis (UC). Data on the role of diet in development of paediatric IBD is scanty. The aim of our study was to evaluate pre-illness dietary intakes in paediatric patients with newly diagnosed IBD and compare the findings with dietary consumption of healthy subjects. The objective of this comparison was to identify nutrients which could potentially be involved as dietary risk or protective factors for the development of disease.

Methods: Dietary consumption 12 months prior to symptom onset was assessed in 25 children and adolescents with newly diagnosed IBD aged 6-17 years (CD n=13, UC n=10, Undetermined Colitis (IBDU) n=2). Data on dietary consumption was collected by a dietitian, through a 7-day dietary recall and analysed with Software *MètaDieta*, which calculated the mean intakes of macro- and micronutrients from the diet. The same dietary recall was performed in healthy controls (HC; n=25), matched for age and gender. The nutrient intakes were expressed as percentage of the recommended dietary intakes for the Italian population (*RDI-Livelli di Assunzione di Energia e Nutrienti Raccomandati per la Popolazione Italiana LARN 2012*) and compared between IBD and HC groups. In IBD group, comparison of nutrient intakes between CD and UC subjects was also done.

Results: Energy intake (% of estimated energy requirements, EER) and protein intake (% of population reference intake, PRI) were higher in IBD vs HC group (p =0,017 and p=0, 0001 respectively). Lipid intake (% of reference intake range for macronutrients, RI) was higher in HC vs IBD group (p= 0, 0417). Animal/Vegetable protein ratio and Omega 6 /Omega 3 lipid ratio were higher in IBD vs HC group (p=0, 0225 and p=0, 0523 respectively). No between group differences were observed for carbohydrates and for micronutrients except for iron and vitamin E. Iron intake (% PRI) was higher in IBD vs HC group (p=0, 0286). Intake of vitamin E (% of adequate intake, AI) was lower in IBD vs HC group, with values close to statistical significance (p=0, 0752). Main results are represented in figure 1. In IBD group, no significant difference of nutrient intakes was observed between CD and UC subjects.

Image:

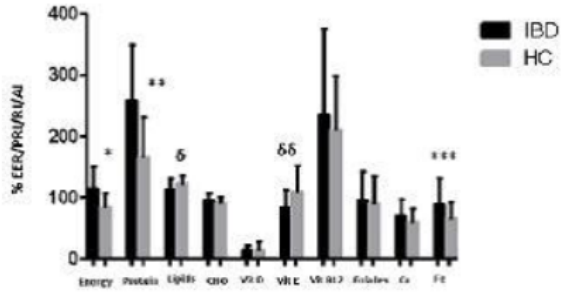

Figure 1. Micro and macronutrient intakes in IBD and HC groups. CHO: carbohydrates, Ca: Calcium, Fe: Iron. * p=0.017, ** p<0.0001, *** p=0.0295, δ p=0.0417, δδ p=0.0752.

Conclusion: Our results suggest that specific nutrients may be implicated in pathogenesis of paediatric IBD. High intake of animal protein, Omega 6 lipids and iron may have a role as risk factors, whilst high consumption of Omega 3 lipids and vitamin E may be protective for the development of paediatric IBD.

Disclosure of Interest: None Declared