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Can dietary Omega 3 fatty acids reduce asthma symptoms in children? Preliminary results of a randomized controlled trial

Maria Michelle Papamichael¹, Charis Katsardis², Dimitris Tsoukalas³, Bircan Erbas¹ and Catherine Itsiopoulos¹

¹LaTrobe University, Australia

²National & Kapodistrian University of Athens, Greece

³European Institute of Nutritional Medicine, Italy

There is a general consensus that the global allergy epidemic in children is attributed to a changing environment including lifestyle and diet that is high in omega 6 fatty acids and low in omega 3 fatty acids. It has been postulated that omega 3 fatty acids may modulate the development of IgE mediated allergic disease and regulate immune responses. This is the first clinical trial to investigate fatty fish (in the context of the Greek Mediterranean diet) as an adjunct therapy for paediatric asthma. Children aged 5-12 years with doctor-diagnosed 'mild asthma' were recruited from a paediatric asthma clinic in Athens, Greece and randomized into two groups. The intervention group is instructed to consume two serves of fatty fish per week (at least 150 g cooked fish/serve) for six months and the control group, their usual diet. Questionnaires were used to collect information on medical, dietary, socio-demographic, asthma control and quality of life. Spirometry (FEV1) and exhaled nitric oxide (eNO) analysis were used to evaluate pulmonary function. Adherence to the Mediterranean dietary pattern

was assessed using the KIDMED score. Seventy-two children (54.2% boys, 45.8% girls) were successfully recruited. At baseline, 56.94% are 'normal' weight, 27.78% 'overweight' and 11.11% 'obese' according to the Hellenic Paediatric Growth Charts. In conclusion, children suffering with asthma might be at higher risk of becoming overweight and this in turn may affect asthma symptoms. Clinicians should recommend the importance of healthy eating in the prevention and management of overweight issues in paediatric asthma.

Speaker Biography

Maria Michelle Papamichael is a Registered Dietician who has dedicated her life in educating people about the importance of good nutrition and exercise in the prevention and management of disease as well as in improving health and well-being. Being an asthma sufferer since childhood has motivated her to undertake a PhD Research Project at La Trobe University to investigate the prophylactic potential of a Mediterranean diet enriched with fatty fish in the management of asthma in children.

e: sassipap@hotmail.com