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FATTY FISH (Ω3): IS A DIET THERAPY FOR PAEDIATRIC ASTHMA?

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Allergic disease can be referred to as the new mastiga of the 21st century. Childhood asthma is the most common respiratory disorder worldwide associated with increased morbidity, sometimes early mortality and decreased quality of life, Even then, the advances in pharmacotherapy, asthma control in children is poor. Hence, there is an urgent need for an alternative therapy that reduces burden of this disease. There is growing interest in omega-3 fatty acids in this disease due to anti-inflammatory and immunomodulating properties. However, their efficacy in asthma is controversial. The purpose of this study was to investigate the impact of fatty fish consumption in asthmatic children.

Methods: This was a six-month parallel randomized controlled trial. We selected 72 children (54.2% boys; 45.8% girls), 5-12 years old with doctor-diagnosed 'mild asthma' from an asthma clinic in Athens, Greece. Participants were equally randomized to two groups: the intervention group consumed two fatty fish meals per week (≥ 150g fillet fatty fish/meal) as part of the Mediterranean dietary pattern and the control group, their usual diet. Pulmonary function was assessed using spirometry and exhaled Nitric Oxide analysis (eNO); asthma control and quality of life by questionnaires.

Results: At six months, we had 89% (64/72) participation rate. Multiple linear regression model showed a significant change in eNO for the intervention group (95% CI: -27.39, -0.91; beta=-14.15; p=0.037) after adjusting for confounders such as age, sex, regular physical activity and BMI. A unit increment in fatty fish consumption decreased lung inflammation by 14 ppb for the intervention group as compared to the control. No differences were observed for spirometry parameters, asthma control or quality of life scores.

Conclusion: The current study suggests that a healthy diet including two fatty fish meals per week should be included in asthma dietary guidelines.

Biography

Maria Papamichael is a Registered Dietician/Sports Nutritionist who has dedicated her life in educating people 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 (Australia) to investigate the prophylactic potential of a Mediterranean diet enriched with fatty fish in the management of asthma in children.

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