Review > Aliment Pharmacol Ther, 31 (7), 679-92 Apr 2010

Review Article: omega-3 Fatty Acids - A Promising Novel Therapy for Non-Alcoholic Fatty Liver Disease

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Abstract

Background: Non-alcoholic fatty liver disease affects 10-35% of the adult population worldwide; there is no consensus on its treatment. Omega-3 fatty acids have proven benefits for hyperlipidaemia and cardiovascular disease, and have recently been suggested as a treatment for non-alcoholic fatty liver disease.

Aims: To review the evidence base for omega-3 fatty acids in non-alcoholic fatty liver disease and critically appraise the literature relating to human trials.

Methods: A Medline and PubMed search was performed to identify relevant literature using search terms 'omega-3', 'N-3 PUFA', 'eicosapentaenoic acid', 'docosahexaenoic acid', 'non-alcoholic fatty liver disease' and 'NAFLD'.

Results: Omega-3 fatty acids are important regulators of hepatic gene transcription. Animal studies demonstrate that they reduce hepatic steatosis, improve insulin sensitivity and reduce markers of inflammation. Clinical trials in human subjects generally confirm these findings, but have significant design inadequacies.

Conclusions: Omega-3 fatty acids are a promising treatment for non-alcoholic fatty liver disease which require to be tested in randomized placebo-controlled trials.

Comment in

Role of Nitric Oxide in the Treatment of Non-Alcoholic Fatty Liver by omega-3 Fatty Acids

Y Beyazit et al. Aliment Pharmacol Ther 32 (2), 303-4. Jul 2010. PMID 20636624.

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