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Omega-3 Fatty Acids: A novel approach for pain treatment

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Abstract

The treatment of acute and chronic severe pain remains an important common challenge faced by clinicians working with the general population, and even after applying recent advances in the treatment of acute and chronic severe pain, there can continue to be manifestations of adverse effects. Chronic pain affects many aspects in the life of the patient, and often has an impact on their families. In some cases, after an acute pain, the patient continues to experience chronic pain, which can be a result of illnesses such as cancer. As there is growing evidence that omega-3 fatty acids can contribute to the reduction of pain, this presentation will describe an innovative technological development, both in its pharmaceutical composition (using omega-3 fatty acids with either morphine or methadone) and in the pharmacological treatments associated with its use. In addition, the preclinical evidence concerning the analgesic effects of omega-3 fatty acids (eicosapentaenoic acid and docosahexaenoic acid) will also be explored. The main advantage of new pharmacological treatments using these pharmaceutical compositions lies in the improved pain control obtained with a sub-therapeutic dose of these opioids, which can lead to the elimination or at least potential reduction of the adverse effects.

Biography

Carlos Laino received his PhD degree in Pharmacology from University of Buenos Aires, Argentina and completed his Post-graduate studies in the laboratory of the Research Department of Neuroscience, Center for Addiction and Mental Health, Research Foundation of Toronto, Canada. Then, he joined the National University of La Rioja (Argentina) in 2005 and is currently an Associate Professor of Pharmacology and Toxicology. He further received an award for Innovative Research Work from the National Innovation Submit & Showcase Tech Connect World in 2013 and 2014. His research focuses on drug discovery in several therapeutic areas, especially pain.

Publication

- 1. Beneficial effects of fish oil enriched in omega-3 fatty acids on the development and maintenance of neuropathic pain
- 2. Sciatic nerve recovery after a chronic constriction injury model using EPA/DHA-concentrate fish oil
- 3. Omega-3 Acids Administration Attenuates Neuropathic Pain Behaviors in Rats and promotes Nerve Functional Recovery.

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