Extended Journal of 2020
Vol.2 No.3

Palmitoylethanolamide and other Lipid Autacoids in the Treatment of Chronic Pain: A New Chapter in Pain Medicine

Hesselink JMK
Department of Molecular Pharmacology, University of Witten/Herdecke, Germany

Abstract
We gathered clinical expertise since 2010 victimization associate degree oral formulation of associate degree endogenous supermolecule traveler, associate degree secretion, in an exceedingly nice several neuropathic pain disorders [1]. This compound palmitoylethanolamide (PEA), is that the image of supermolecule autacoids, able to counteract chronic inflammation and chronic pain. PEA is accessible since 2005 as a supplement (nutraceutical) [2] (Figure 1). presently there solely 2 prime quality and patent-based formulations clinically tested and obtainable (without prescription needed), one product is developed in Italian Republic (Normast, three hundred and 600 mg tablets), and one within the Kingdom of The Netherlands (PeaPure, four hundred mg capsules). In our Dutch Institute for Neuropathic Pain we've worked with each formulations in patients laid low with variety of chronic pain disorders, primarily in neuropathic pain, and documented our findings in numerous case-report series [3,4]. Since a pair of decades new supermolecule autacoids are discovered. this can modification the landscape of the treatment of chronic pain, particularly since these categories square measure barren of the hard facet effects we all know from classical analgesics Inhibition of Neuroinflammation by 'following wherever Nature Leads' Chronic pain and chronic (neuro-)inflammation go hand in hand. Inhibiting chronic inflammation usually encompasses a positive impact on pain symptoms in chronic pain. However, there square measure solely corticosteroids and NSAID's (non-steroidal anti-inflammatory drug drugs) obtainable for the practitioner to inhibit chronic inflammation and each categories square measure fraud with facet impact issues. supermolecule autacoids square measure endogenous molecules, suitable numerous oral and canal formulations to treat chronic pain and inflammation via influencing natural existing organic chemistry pathways in our body. whereas PEA is already obtainable and has been clinically tested as pill, capsule, suspension and cream, alternative supermolecule autacoids square measure tougher to administer orally and square measure in want for additional analysis and development work on the instant. it absolutely was already in 1986 that the eminent neurobiologist academician Erminio Costa (1924 - 2009) delivered a keynote lecture in Washington: 'To follow wherever nature leads'. Costa acknowledged however nature itself will become our tutor in developing new therapeutic inroads, in up to now as we are able to trigger and activate endogenous repair and defense mechanisms of the body by administrating the endogenous molecules associated with these pathways [5]. the trendy supermolecule autacoids, like the lipoxins, resolvins, the protectins, the maresins similarly because the N-acyl-ethanolamides to that PEA belongs, square measure categories of compounds activating nature in its

action, and their mechanism of actions has been formed throughout several scores of years evolution in animals and plants.

Lipid Autacoids of Aliamides: Brakes on Pathological Inflammation

Autacoids square measure a regionally created modulating factors, influencing regionally the operate of cells and/or tissues, that square measure created on demand and that afterwards square measure metabolized within the same cells and/ or tissues [14]. There square measure completely different categories of supermolecule autacoids: the N-acylethanolamides (NAEs), lipoxins (Lxs) protectins (Pts), resolvins (Rvs) and maresins(Mss) presently appear the foremost necessary. The key operate of those molecules is to inhibit hyperactive and activated immune cascades and so act sort of a 'stop' signal in inflammation processes otherwise turning into pathological, a break. Such autacoids square measure referred as 'nature's thanks to resolve inflammation', clearly supporting the idea of 'to follow wherever nature leads' Costa introduced in 1986.

It is currently usually identified that cells convert ω-3 unsaturated fatty acids into extremely potent, transient, anti-inflammatory drug autacoids that management the period and magnitude of inflammation [18].

Conclusion

In several chronic pain states there's a disturbed balance between over activated inflammatory factors and inflammation breakdown and inhibiting factors. Recently additional insight is gained into the natural inhibitors for these hyperactive inflammation processes. The body will synthesize a series of supermolecule inflammation-resolving and inhibiting endogenous factors. In line with the vision of professors Costa and Rita Levi-Montalcini additional attention has been given recently to those natural corrective mechanisms supported autacoids. These square measure endogenous molecules, created on demand, and acting directly in tissue was they were created. There square measure variety of relevant families of those autacoids: the N-acylethanolamides to that PEA belongs, the lipoxins, resolvins, protectins and maresins. Relevant (high) dosages of unsaturated unsaturated precursors square measure alleged to stimulate increased synthesis of a number of these autacoids. Low dose Empirin appears to spice up its synthesis.

hesselink@witten.com

This work is partly presented at Joint Event on 24th World Congress on Pharmacology & 7th World Heart Congress, August19- 20, 2019 at Vienna, Austria