Reviewer’s report

Title: Resolvin D1 reverses chronic pancreatitis-induced mechanical allodynia, phosphorylation of NMDA receptors, and cytokines expression in the thoracic spinal dorsal horn

Version: 2 Date: 1 August 2012

Reviewer: Ihsan Ekin Demir

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In the revised version of their manuscript, Feng et al. extended their study by additional experiments related to the role of resolvin D1 in pain-associated behavior in chronic pancreatitis (CP). Here they observed that resolvin-D1 (RvD1) did not affect the behavior of animals in open-field and the elevated plus maze tests. Additionally, they showed that RvD1 treatment significantly suppressed the secretion of pro-inflammatory cytokines in the spinal cord of rats.

Overall, the study benefited significantly from these revisions. I have a single major comment related to the current version of the study.

Major Compulsory Revisions

1) Pain continues to be an enigma not only in CP but in numerous neuropathic pain disorders, and understanding its exact mechanism of generation bears major importance. In the presence of several studies reporting on the beneficial impact of several therapeutic agents on CP-related pain, it remains important to demonstrate the cells upon which these agents act. Therefore, in my view, showing this cell type by e.g. double immunolabeling as suggested before would confer the study a very high quality. In particular, the authors should make use 1) of a neuronal marker, 2) of a microglial marker, and 3) of an astrocyte marker to show the site of RvD1 action.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.