Reviewer's report

Title: Skin cytokine expression in patients with fibromyalgia syndrome is not different from controls

Version: 2
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Reviewer: Ignacio Blanco

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Brief summary of the study:

This is a pilot study with very small sample size, in which cytokines TNF-a, IL-6, IL-8 and IL-10 and delta opioid receptor (DOR) gene expression were studied in lateral upper thigh and lower calf skin samples from 25 patients with fibromyalgia syndrome (FMS), 10 patients with depression, and 35 healthy controls. No significant differences among the three groups in the parameters studied were found. So these results do not support the hypothesis that the investigated cytokines and DORs play a role of in sensitization of peripheral nerve fibers as a potential mechanism of small fiber pathology in FMS.

Comments:
- The article does not require major mandatory reviews.
- Minor Essential Revisions.
  Table 1: Basic data of 1 patient groups. It would be fine to add the sex (M, F) and the mean age and range of healthy controls.
- Introduction and Discussion: The authors give an overview about the current state of the subject, in which they cite his and other authors' previous works. In the discussion (page 9, line 17) reads: “The so far only study investigating skin cytokine expression in FMS patients was published by Salemi et al. “ …However, it strikes us that our study “Blanco I, et al. Abnormal overexpression of mastocytes in skin biopsies of fibromyalgia patients, Clin Rheumatol. 2010”, in which skin biopsies of the gluteal region of 112 subjects (63 FMS vs 49 healthy controls) were analyzed for Alpha1-antitrypsin, tryptase, elastase, Proteinase activated receptors 2 (PAR2), Monocyte Chemoattractant Protein-1 (MCP-1), Tumor Necrosis Factor-alpha (TNF) and Vascular Endothelial Growth Factor (VEGF), and yet it has been omitted. It may possibly be because of the different sites of biopsies and because different cytokine measurement techniques. Anyway, authors should explain the reasons for this omission, and in any case they should consider whether to add it to the current list of references and also discuss their findings, if they consider it appropriate.
- Discretionary Revisions
  The keyword “gene expression” can be omitted.
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Declaration of competing interests:

I declare that I have no competing interests.