



Letter

Is there a gender difference in maltreatment-associated fibromyalgia?

Manuel Martinez-Lavin

Chief, Rheumatology Department, National Institute of Cardiology, Mexico

ARTICLE INFO

Article History:

Received 19 June 2020

Revised 2 July 2020

Accepted 7 July 2020

Available online xxx

To the Editor—I read with great interest Chandan et al. enlightening article describing the association of childhood maltreatment with the subsequent development of fibromyalgia and other similar maladies. Using a large UK primary care database, they found that, when compared to an unexposed cohort, maltreated children have significantly higher risk for fibromyalgia development later in life (aIRR = 2.06; 95%CI = 1.71–2.48). Fifty-eight percent of maltreated children were female. [1] We are not told what percentage of abused children developing fibromyalgia were women. This seems to be an important point considering fibromyalgia a female-predominant illness. Around 90% of fibromyalgia patients seeking medical care are women.

Fibromyalgia is clearly a stress-related disorder. The key issue in fibromyalgia research is to define how different stressful circumstances including childhood abuse could lead to chronic pain, and why females are predominantly affected [2].

Our research proposes fibromyalgia as a stress-related sympathetically-maintained neuropathic pain syndrome [2]. The recently recognized link between fibromyalgia and small fiber neuropathy reinforces this pathogenetic model [3]. We propose dorsal root ganglia as the key site where different afferent stress-derived signals are converted into neuropathic pain [2,3]. There is marked sexual dimorphism in stress-evoked dorsal root ganglia phenotypic changes and

also in stress-evoked painful neuropathy [4-5]. Chandan et al. excellent research could advance our knowledge on the gender differences in stress-evoked fibromyalgia and similar syndromes. Would be important to know if maltreated children developing fibromyalgia were mostly women.

Declaration of Competing Interest

I declare no conflict of interest.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.eclinm.2020.100468](https://doi.org/10.1016/j.eclinm.2020.100468).

References

- [1] Chandan JS, Keerthy D, TefraZemedikun D et al. The association between exposure to childhood maltreatment and the subsequent development of functional somatic and visceral pain syndromes. *Eclin Med* 2020 [doi.org/](https://doi.org/10.1016/j.eclinm.2020.100392). doi: [10.1016/j.eclinm.2020.100392](https://doi.org/10.1016/j.eclinm.2020.100392).
- [2] Martinez-Lavin M. Fibromyalgia when distress becomes (un)sympathetic pain. *Pain Res Treat* 2012;98156.
- [3] Martínez-Lavin M. Small fiber neuropathy and fibromyalgia. Plot Thickens! *Clin Rheumatol* 2018;37:3167–71.
- [4] Chen Y, Moutal A, navratilova E, et al. The prolactin receptor long isoform regulates nociceptor sensitization and opioid-induced hyperalgesia selectively in females. *Sci Transl Med* 2020;12 eaay7550. doi: [10.1126/scitranslmed.aay7550](https://doi.org/10.1126/scitranslmed.aay7550).
- [5] Achenbach J, Rhein M, Gombert S, et al. Childhood traumatization is associated with differences in TRPA1 promoter methylation in female patients with multisomatoform disorder with pain as the leading bodily symptom. *Clin Epigenet* 2019;11:126.

E-mail address: drmartinezlavin@gmail.com

<https://doi.org/10.1016/j.eclinm.2020.100468>

2589-5370/© 2020 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license. (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)