

Are electromagnetic hypersensitivity and fibromyalgia actually a small fiber neuropathy? A preliminary study

Saturday, September 13, 2025 2:10 PM (20 minutes)

Fibromyalgia (FM) is characterized by chronic widespread pain with musculoskeletal stiffness and tenderness. FM patients were investigated with skin biopsy for Small Fiber Neuropathy SFN: Grayston's metanalysis 2018 concerning 8 studies about FM pooled prevalence of Small Fiber Neuropathy (SFN) (49%).

Electromagnetic hypersensitivity (EHS) is characterized by a variety of no specific symptoms which afflicted individuals attribute to exposure to Electromagnetic field EMF (self - reported).

The study was carried out on 31 subjects: 11 with EHS and FM, 10 with EHS and 10 controls. All subjects were administered nine tests: (SGWB), (RSE), (MSPSS), (CD-RISC), (GSE), (LOC), (BAI), (CES-D), (BFQ).

Furthermore, the subjects underwent skin biopsy

Results showed that thin fiber pathology exists in EHS with or without fibromyalgia FM.

MANOVA performed to assess differences between FM-EHS, EHS and control group for SGWB, RSE, MSPSS, CD-RISC, GSE, LOC, CES-D, BAI and BFQ, was significant. The ANOVAs for each dependent variables showed just one significant result for BAI. Post-hoc showed significant differences between FM-EHS, EHS and control group ($p < 0.05$). For all test the subjects result's lie under the pathology thresholds.

Furthermore SFN was found in 15 patients showing an epidermal denervation whereas 6 patients presented a normal epidermal innervation: 11 of 11 in the FM-EHS group and 4 of 10 in the EHS group showed SFN.

If you're submitting a symposium talk, what's the symposium title?

If you're submitting a symposium, or a talk that is part of a symposium, is this a junior symposium?

No

Primary author: CONTE, Stella (Dipartimento di Pedagogia, Psicologia e Filosofia)

Co-authors: FERRANTI, G.; ZUCCHERO, A.; DIFONTE, A.; ORIO, P.; DONADIO, V.

Presenter: CONTE, Stella (Dipartimento di Pedagogia, Psicologia e Filosofia)

Session Classification: Lunch and poster 3

Track Classification: Attention, perception and consciousness