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Electrohypersensitivity as a Newly Identified and Characterized Neurologic Pathological Disorder: How to Diagnose, Treat, and Prevent It

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Additional article information

Abstract

Since 2009, we built up a database which presently includes more than 2000 electrohypersensitivity (EHS) and/or multiple chemical sensitivity (MCS) self-reported cases. This database shows that EHS is associated in 30% of the cases with MCS, and that MCS precedes the occurrence of EHS in 37% of these EHS/MCS-associated cases. EHS and MCS can be characterized clinically by a similar symptomatic picture, and biologically by low-grade inflammation and an autoimmune response involving autoantibodies against O-myelin. Moreover, 80% of the patients with EHS present with one, two, or three detectable oxidative stress biomarkers in their peripheral blood, meaning that overall these patients present with a true objective somatic disorder. Moreover, by using ultrasonic cerebral tomosphygmography and transcranial Doppler ultrasonography, we showed that cases have a defect in the middle cerebral artery hemodynamics, and we localized a tissue pulsometric index deficiency in the capsulo-thalamic area of the temporal lobes, suggesting the involvement of the limbic system and the thalamus. Altogether, these data strongly suggest that EHS is a neurologic pathological disorder which can be diagnosed, treated, and prevented. Because EHS is becoming a new insidious worldwide plague involving millions of people, we ask the World Health Organization (WHO) to include EHS as a neurologic disorder in the international classification of diseases.

Keywords: electrohypersensibility, multiple chemical sensitivity, neurologic disease, oxidative stress, melatonin, O-myelin, inflammation, histamine, radiofrequency, extremely low frequency, electromagnetic fields

1. Introduction

The term electromagnetic hypersensitivity or electrohypersensitivity (EHS) was first proposed in 1991 by William Rea to identify the clinical condition of patients reporting health effects while