

The clinical and laboratory tests which make up the panel are not individually specific, but as a group elicit suspicion of chronic exposure to toxic and/or anthropogenic electromagnetic stress(es). In addition to exogenous physiologic insults, there are endogenous vulnerabilities of many kinds (age, illness, lifestyle, genetic individualities). All quotations are excerpted from Dr. Belpomme's paper, and have been truncated for brevity and/or to limit discussion to EHS. Emphasis has been added.

"...Inflammation appears to be a key process resulting from... EMF ... on tissues... Oxidative stress is part of inflammation and is a key contributor to damage and response. Nitrotyrosin [is] a marker of peroxynitrite (ONOO) production and opening of the blood-brain barrier... Protein S100B [is] another marker of BBB opening... Circulating autoantibodies against O-myelin were detected... indicating EHS... [Heat shock proteins] Hsp27 and/or Hsp30 [were measured] ... we determined the 24 hr urine 6-hydroxymelatonin sulfate (6-OHMS)/creatinin ratio... we serially measured the blood flow in the temporal lobes ...EHS [was] associated with hypoperfusion in the capsulothalamic area, suggesting that the inflammatory process involve[s] the limbic system and the thalamus... ."

RELIABLE BIOMARKERS IDENTIFYING EHS AND MCS – A UNIQUE PATHOLOGICAL DISORDER

"Near 40% had a increase in histaminemia... Nitrotyrosin... was increased in 28% the cases. Protein S100B was increased in 15%. Circulating autoantibodies against O-myelin were detected in 23%... we found increased Hsp27 and/or Hsp70 in 33% of the patients... we determined the 24 h urine 6-hydroxymelatonin sulfate (6-OHMS)/creatinin ratio and found it was decreased (<0.8) in all investigated cases... "

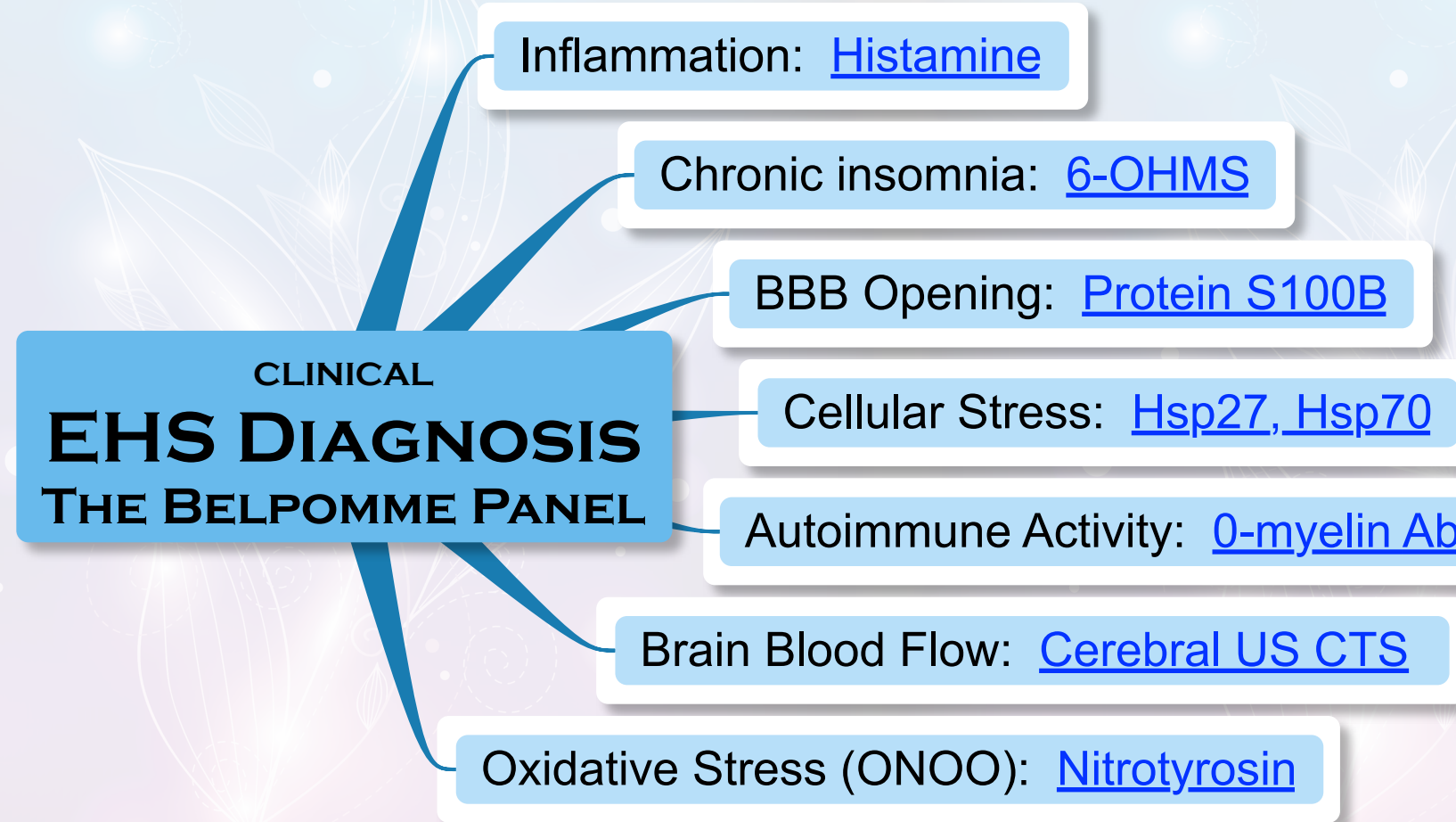
"An important finding... is the discovery that histamine in the peripheral blood is increased in nearly 40% of the patients... This finding suggests that histamine is... a natural clinical biomarker of EHS... since it has been shown to be not only a neurotransmitter... released by the CNS, but also an inflammatory mediator produced and released by mast cells in many inflammatory processes including neuro-inflammation..."

"...histamine and other neuro-inflammation mediators induce oxidative and nitrosative stress and so change the molecular composition and functional state of the BBB endothelial tight junctions, hence increasing permeability of the BBB."

"the role of histamine in modulating the immune system... the disturbance of the immune system by EMFs... and the progressive increase in oxidative and nitrosative stress as long as chronic exposure to EMFs... persists may explain why the physiological defence [sic] mechanisms... may finally collapse."

Three tests -- histamine, S100B and NTT -- were all positive in 70-80% of the studied EHS patients. The others showed dysfunction in the US CTS.

Each of the tests in the panel, when positive by itself, may indicate other pathologies and dysfunctions.



GROUPED SYMPTOMS

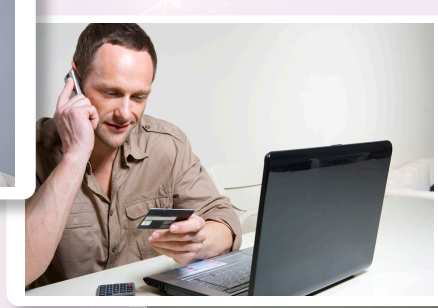
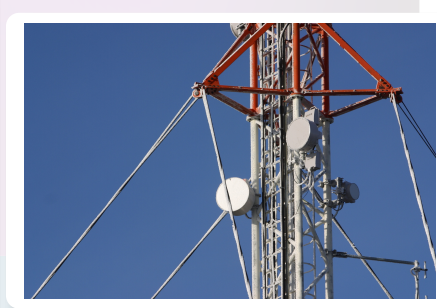
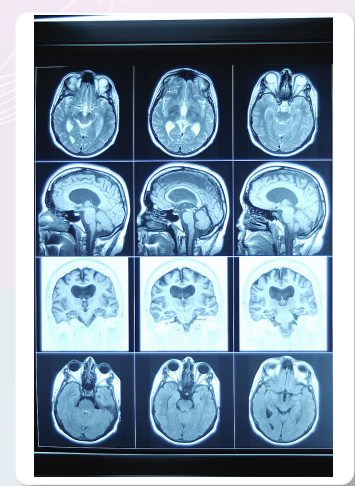
- Headache
- Sensory abnormalities
- Skin lesions
- SNS dysfunction
- Cognitive dysfunctions
 - Memory
 - Attention
 - Concentration
- Insomnia
- Chronic fatigue
- Depressive tendency

EUROPAEM EMF GUIDELINE 2016 FOR... EMF-RELATED HEALTH PROBLEMS

WHAT'S THE DIAGNOSIS?

EXPLODING HEAD SYNDROME

- OTHER TESTS IN THE LITERATURE**
- Metabolic and genetic screening
 - Bilirubin, Pyrrole, Serotonin
 - Rouleau formation EMF field
 - Genetic screen for redox, inflamm. markers
 - Comparative Encephaloscans
 - Chymase, Tryptase
 - Salivary oxidative stress indices
 - CBC changes: WBC, RBC, MCV, Hb



DOMINIQUE BELPOMME

- 2012 EHS Explained
- 2014 EHS: Pre-Alzheimer's?
- 2015 Presentation, Paris

OTHER TESTS

- Questionnaire
- Biomarker Summary
- Dr. Johansson, State of the Art
- Dr. Mallery-Blythe: EHS Diagnosis

SEE RELATED MAPS:

- Bio-Effects
- Membranes
- EHS Overview
- EHS Therapies
- Multiple-Hit Model
- Free Radical Injury
- Mast Cell Response
- Inflammation Series
- Melatonin Hypothesis
- Immune System Effects

Home: [Oscillatorium](#)
 Newest version [this map](#)
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