

# Cerebral magnetic resonance changes associated with fibromyalgia syndrome

## [Cambios en la resonancia magnética cerebral asociados al síndrome de fibromialgia]

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Fibromyalgia syndrome is a chronic disease, of unknown origin, whose diagnostic criteria were established in 1990 by the American College of Rheumatology. New criteria were proposed in 2010 that have not yet been validated. It is characterized by a generalized chronic musculoskeletal pain, accompanied by hyperalgesia and allodynia, as well as other motor, vegetative, cognitive and affective symptoms and signs. We have reviewed a set of studies with cerebral magnetic resonance (morphometry, connectivity and spectroscopy) that refer to changes in areas involved in pain processing. Modifications in gray and white matter volume, as well as in levels of N-acetylaspartate, choline or glutamate, among other metabolites, have been observed in the hippocampus, insula, prefrontal and cingular cortex. Neuroradiological findings are nonspecific and similar to those found in other examples of chronic pain. An increase in the sample size and a standardized methodology would facilitate comparison, allowing the drawing of general conclusions. © 2017 Elsevier España, S.L.U.

Brain magnetic resonance

Connectivity

Fibromyalgia syndrome

Morphometry

Spectroscopy

choline

glutamic acid

n acetylaspartic acid

brain size

chronic pain

cingulate gyrus

comparative study

fibromyalgia

gray matter

hippocampus

human

insula

morphometry

neuroimaging

neuroradiology

nuclear magnetic resonance imaging

nuclear magnetic resonance spectroscopy

prefrontal cortex

Review

white matter

brain

diagnostic imaging

fibromyalgia

neuroimaging

Brain

Fibromyalgia

Humans

Magnetic Resonance Imaging

Neuroimaging