

Early treatment of fibromyalgia more effective

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The difference in brain activity among fibromyalgia patients and healthy controls during the same degree of perceived pain.

(PhysOrg.com) -- People suffering from fibromyalgia have reduced activity in the parts of the brain that inhibit the experience of pain. Drugs that affect the CNS can be effective against the disease, and are thought to be even more so if administered early in its course. This according to a new thesis from Karolinska Institutet.

"It's a common misconception that fibromyalgia is a manifestation of mental problems," says Karin B. Jensen, postgraduate at the Department of Clinical Neuroscience. "But in the studies that comprise my thesis, we've made careful measurements and have found no correlation at all between pain sensitivity in fibromyalgia patients and the degree of



anxiety or depression they show."

In one of the studies presented in the thesis, subjects had both thumbs pressed hard enough for them to feel the same degree of mild pain as healthy controls. Using <u>functional magnetic resonance imaging</u> (fMRI), researchers could show that the subjects had the same level of activity in the parts of the brain that deal with emotions as well assensory information from the thumb, regardless of which group they belonged to. However, the subjects with fibromyalgia had lower activity in a brain area that inhibits the experience of pain.

According to the team, treatment with drugs that work on the <u>central</u> <u>nervous system</u> (CNS), such as SNRI antidepressants, are effective against fibromyalgia. But this is not a question of treating depression but of other properties of these drugs.

"The patients who had had their pain symptoms for the shortest amount of time were those that responded best to the drug treatments tested," says Karin B Jensen. "This shows how important it is that fibromyalgia is detected and taken seriously as early in its development as possible."

Her thesis also confirms the existence of a relationship between genetics and pain regulation. Studies of healthy people revealed a relationship between a specific genetic variant and the effect of a morphine-like drug on repeated pain stimulation. The results suggest that the gene under study only affects the body's pain regulating system in the presence of greater psychological stress. This knowledge, say the researchers, could one day make possible the development of customised medical treatments and thus better and more effective pain relief.

Fibromyalgia affects about two per cent of the population, women more so than men. The disease involves the enhancement of pain impulses, leaving sufferers highly sensitive to pain, which is both chronic and



diffuse. Previously, the causes of the disease were unknown, and there were no objective measurements of the way the CNS processes pain. This, in turn, made many sufferers feel misunderstood and mistreated by the healthcare services and during rehabilitation.

Provided by Karolinska Institutet (<u>news</u> : <u>web</u>)

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