Orthological/Neurological Pain

Scientists One Step Closer to Understanding The Analgesic Effects of Acupuncture

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Combined diprenorphine PET and fMRI study of Acupuncture Analgesia

New research conducted through *Harvard Medical School* and published in the November, 2008 issue of *Behavioural Brain Research* found significant evidence that endogenous opioids are central to the experience of pain and acupuncture analgesia.

Acupuncture analgesia (AA) is defined as acupuncture used to relieve pain and regulate the physiologic status of the body. It is one of the most widely researched topics in complementary and alternative medicine.

Scientists applied a *Positron emission tomography* (PET) scan with *functional magnetic resonance imaging* (fMRI) to examine brain signals and pain receptors during an acupuncture analgesia treatment.

Functional Magnetic Resonance Imaging (fMRI) is a type of specialized MRI scan. It measures the haemodynamic response related to neural activity in the brain or spinal cord of humans or other animals. *Positron emission tomography* (PET) is a nuclear medicine imaging technique which produces a three-dimensional image or map of functional processes in the body. PET scans are increasingly read alongside fMRI scans, to collect both anatomic and metabolic information.

Using this integrative imaging approach during acupuncture point stimulation, scientists found functional magnetic resonance imaging signal changes in the orbitofrontal cortex, insula, and pons and diprenorphine PET signal changes in the orbitofrontal cortex, medial prefrontal cortex, insula, thalamus, and anterior cingulated cortex

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