MedicalXpress

Researching the power of the placebo effect in arthritis patients

August 7 2008

(PhysOrg.com) -- People with arthritis are to take part in new research carried out at The University of Manchester to find out more about how the placebo effect works.

Thirty patients with osteoarthritis and another 30 with chronic widespread pain will be recruited from the musculoskeletal pain clinic at Hope Hospital in Salford, other pain clinics throughout the North West, and doctors' surgeries that form part of the North West Primary Health Care Research Network. An additional 30 healthy controls will also be recruited.

The three-year £200,000 Arthritis Research Campaign-funded study aims to find out if placebos, or dummy pills, work by releasing natural painkillers in the body.

The placebo effect – where patients feel an improvement in their symptoms due to the power of suggestion rather than due to the effects of an actual drug – is a hugely important phenomenon in the treatment of chronic conditions such as arthritis and chronic widespread pain.

Many patients who find benefit from some complementary medicines, for example, may attribute their improvement to the therapy but it may really be because they believe and expect the treatment will work.

Similarly, in drug trials, those patients on the placebo arm will often experience an improvement in symptoms equal to the active drug arm.

Researchers remain unsure exactly how the placebo effect works, but it provides a powerful and safe type of ‘treatment’.

Anthony Jones, Professor of Neuro Rheumatology at the Human Pain Research Group at Hope Hospital, has been leading a team investigating the phenomenon of the placebo effect for several years and how it affects the body’s response to pain, and developing methods of measuring anticipation of pain using EEG.

The team has established that pain relief due to the placebo effect is associated with changes in anticipation and have identified structures in the front of the brain that initiate and maintain this change in anticipation.

Now Professor Jones aims to give a placebo to volunteers with osteoarthritis and fibromyalgia to find out if it releases natural painkillers in the body, known as ‘endogenous pain control mechanisms’.

The research team will use laser stimuli to induce experimental placebo responses in the three volunteer groups. It is believed that people with chronic widespread pain have abnormalities of how they anticipate and focus on pain. It is suggested that this results in them feeling greater pain than other people.

“Placebo can affect patients’ response to pain therapy and also influence the results of clinical trials,” said Professor Jones.

“We have shown that responses to experimental placebo alter how the brain responds to pain and, also, that responses to experimental placebo persist in repeated testing in healthy volunteers. This allows us to measure how the brain’s pain control system is being activated under different conditions.

“We hope this study will help us understand how the brain deals with pain, and is also likely to lead to the development of new pain-killing therapies and better ways of testing then.”

Provided by University of Manchester