when triggered from the ventral surface.

The mechanisms by which acupuncture induces its effects are only partly known and are under debate. However, particularly the long-term anti-stress effects of this treatment may well include activation of oxytocinergic pathways and mechanisms. Some animal experimental data indicate that pain relief induced by acupuncture is abolished not only by opioid antagonists but also by oxytocin antagonists. Oxytocin has also been shown to alleviate back and cancer induced pain in humans. Further studies are needed to explore the relationship between oxytocin and the effects of acupuncture.

**Acupuncture Mechanisms and the Relevance to Clinical Practice**

Acupuncture is part of traditional Chinese medicine, a system with an empirical basis that has been used in the treatment of pain for centuries. Its use for pain relief is supported by clinical trials and this has facilitated its acceptance in pain clinics in most countries. Acupuncture effects on pain must devolve from physiological and/or psychological mechanisms with biological foundations. Acupuncture and some other forms of sensory stimulation elicit similar effects in man and other mammals, suggesting that they bring about fundamental physiological changes. Acupuncture excites receptors or nerve fibres in the stimulated tissue which are also physiologically activated by strong muscle contractions and the effects on certain organ functions are similar to those obtained by protracted exercise. Both exercise and acupuncture produce rhythmic discharges in nerve fibres, and cause the release of endogenous neurotransmitters including opioids, monoamines, oxytocin and other neuropeptides (SP, CGRP, GAL, CRF, NPY), important in the control of both sensory, affective and cognitive elements of pain.

Over the past ten years there has been a growing awareness that pain is due not simply to the activation of peripheral nociceptors, as in noiceptive pain, but to multiple factors, and is therefore susceptible to various modes of acupuncture treatments. Depending on the aetiology, pain may be classified into several categories, such as nociceptive, neurogenic, chronic pain syndrome and psychogenic pain.

Musculoskeletal and visceral pain states, both nociceptive, are characterised by hyperalgesia. However, despite belonging to a similar category, the pain is triggered by different mechanisms. Neurogenic pain is caused by injury or dysfunction in the nervous system and is often severe and intractable and may not respond to even powerful opioids. Recent studies suggest that there is a third pain category, distinct from the neurogenic and nociceptive, where pain is related to a sickness response that occurs with exposure to chemical compounds and infectious agents the associated central changes produce heightened pain sensitivity (‘hurting all over’), termed chronic pain syndrome. In clinical trials acupuncture or low frequency electroacupuncture have shown to be effective in some nociceptive pain states, whereas high frequency stimulation is more effective in neurogenic pain. In chronic pain syndrome patients with high anxiety, acupuncture is generally inefficient. It is possible that part of the lack of effect in chronic pain syndromes can be attributed to high levels of the opioid-antagonist endocannabinin in the brain.

Acupuncture may be effective in some categories of pain but the mode of stimulation should be adjusted to the aetiology of pain. Also, patients are likely to respond better if they are not stressed and anxious.