

by J C Beenhakker

A symposium on pain which was held in Cambridge during August, attracted speakers and participants world wide. Many thought-provoking and challenging papers were given by speakers who are specialists in their own field of practice or research.

Day one was devoted to the theories and mechanisms of pain. When discussing the role of nerves from muscles and joints, Professor P D Wall suggested that physiotherapy caused sensory stimulation of unmyelinated nerve fibres. This resulted in the release of local chemicals together with stimulation of the sympathetic system and of motor nerves.

Dr Newham, a physiologist, discussed the two types of muscle pain associated with exercise. The pain occurring during exercise is probably caused by trauma to muscles, severe metabolic depletion of ATP and/or stretching of untrained muscles. Delayed onset of pain is mainly due to eccentric muscle contractions and occurs 12-20 hours after exercise. It is probably associated with muscle fatigue and impaired force generation. Contrary to what we believed, studies have shown that lactic acid is not responsible for ischemic pain.

An interesting talk was given by Dr Williams, a neuro-surgeon, who outlined the chemical theory of pain relief and compared the electro physiological to the biochemical approach. He did not believe in surgery for most types of pain relief and suggested that the best neuro-surgeon was one without arms!

Several speakers discussed the function and value of pain clinics which have proliferated all over the world. Mrs Allan from the Boston pain clinic discussed the role of the physiotherapist in the inter disciplinary pain management team. As chronic pain leads to stress which causes further pain and dysfunction, Mrs Allan suggested that one of the best ways of dealing with this pain is by teaching stress coping management techniques.

During day two presentations were made on trials carried out using electrotherapy modalities to relieve pain. Dr Mary Dyson discussed the working of low level laser therapy and its effects, which are mainly molecular vibration with some electrical excitation. Use of pulsed electromagnetic energy, interferential and pulsed short-wave diathermy were also discussed.

One afternoon was devoted to the theories of the psychological process in pain management. Mrs Klaber Moffett from the Nuffield Research Unit discussed how pain may be indirectly measured by behavioural responses to pain. For example by noting the increase or decrease in drug intake, alteration in measurement of joint range or

changes in functional activity, an indication of the patient's pain level can be established. Use is also made of pain diaries which are kept by the patient as well as the various pain scales and questionnaires which are mainly subjective.

Dr Pither described the coping mechanisms regarding pain and how function is affected. He described a survey of 89 patients who had chronic pain wherein it was found that these patients were over investigated and over treated, and very little advice and information had been given to the patients. He felt that many patients had iatrogenic distress and dysfunction and queried whether doctors were half the problem in chronic pain.

The Input Programme which advocates a shift from curing pain to encouraging coping with existing pain was described by Ms Ridout. This program which is held in a group setting runs over five days a week for four weeks. Components of the programme include fitness training, goal setting, withdrawal from drugs, functional and social activities, relaxation and cognitive skills. Patients are encouraged to make plans, challenge unhelpful beliefs and feelings, set goals and reinforce positive behaviour.

During the final day papers were presented on the various modalities which may be used in the treatment of pain. Dr Baldry defined myofascial pain and trigger points and discussed the use of acupuncture. Mr Deadham, Editor of the Journal of Chinese medicine outlined the holistic approach of eastern medicine while Ms Frampton described the use of TNS. She discussed the differences between cortical pain such as causalgia and phantom pain and peripheral pain. She found that the most successful use of TNS was using a width of 50-360ms, 10-100 pulses per second at 0-50ma, which is given for eight hours a day over two to three weeks.

An interesting discussion on manual therapy was given by Miss Thompson who postulated that pain was caused by lack of movement in joints, oedema, muscle spasm, joint entrapment or scar tissue. All of these could be managed by massage, mobilisation, passive stretching, connective tissue massage, manipulation, hydrotherapy, acupuncture and PNF. Manual therapy in its broadest sense has been found to be a very useful tool if the correct technique is used at the right site. It is also important to be aware of the coping style of the patient.

The general impression gained from the symposium was that although it was important to relieve the physical aspect of chronic pain, this alone would not ensure a cure or even reduction in pain unless the cognitive and psychological aspects are considered concurrently.