Conference report

Pain and its management

The eighth annual day conference in the series 'Growing points in the treatment of rheumatic diseases', which was held at Harrogate on 7 May 1987, was devoted to 'Pain and its management'. An audience of 90 was made up of rheumatologists, anaesthetists with responsibility for pain clinics, representatives from industry, and representatives of the paramedical professions that have an interest in the control of pain. The enthusiasm of anaesthetists for this topic contrasted strongly with the low number of abstracts submitted by rheumatologists.

The morning session opened with a review of the neurophysiology of pain by Dr A Harvey (Leeds). Anatomy was well defined in terms of histological tracts of myelinated and unmyelinated fibres. This basic anatomy could be modified in dynamic fashion both by the concept of neuroplasticity (alteration in the connection of the fibres concerned after unmyelinated C fibre activation) and by local humoral control, which was particularly pronounced in the dorsal horn of the spinal cord. The nervous system was biologically well adapted to the handling of acute pain but less so to the handling of chronic pain. Different levels of the nervous system at which intervention might be directed were defined. Dr J Dixon (Harrogate) reviewed the various descriptive scales available for the measurement of subjective pain. Novel semiobjective methods included videotaped recording of attitude, and conventional rheumatological assessments such as grip strength and joint tenderness also reflected an element of pain. The measurement of pain threshold produced a more finite end point, but this was not necessarily the same as pain perceived by the subject. In discussion it was agreed that daily diary card systems provided advantages in circumventing the atypical event of a special visit to clinic, and a plea was made for research on short pain questionnaires that were adapted to rheumatological problems and to modified articular indices that might reflect tenderness as well as synovial proliferation. It was not clear whether the problems inherent in visual analogue scales applied to rheumatology were also experienced when these scales were used for other symptoms such as breathlessness.

Three short papers offered insight into different pharmacological approaches to the control of pain.

Dr A Jones (St Bartholomew's Hospital) described work performed with the Hammersmith cyclotron in the investigation of opioid physiology in man. The investigation of an Indian fakir who lanced himself with needles showed that when he was not in a trance he had a normal response to pain. The induction of a state of intense concentration produced increased theta activity on EEG (of the sort that occurs during sleep), allowing him to lose awareness of his normal physiological response. Naturally occurring opioids were implicated and these might be manipulated pharmacologically. A technique had been devised using diphenorphine as a marker to identify those areas of the brain that had the highest concentration of opioid binding sites. An unexpected finding had been the change in distribution of such sites that occurred during sleep. A controlled trial of two psychotropic agents in osteoarthritis was then described by Dr H Bird (Leeds). Prompted by the insistence of a drug abuser that amphetamines were the only drugs that completely relieved arthritic pain, an appetite suppressant with stimulant properties (diethylpropion) had been compared with an appetite suppressant with sedative properties (fenfluramine) and placebo in patients with osteoarthritis. The stimulant drug relieved symptoms significantly more than the depressant drug, and this effect was independent of weight loss. Dr K Budd (Bradford), an anaesthetist, then reviewed a selection of novel drugs that had found favour with anaesthetists in the relief of many sorts of pain. These included cytotoxic agents, antidepressants, catecholamine antagonists, and amino acids, including D-phenylalanine and L-tryptophan. This last drug was originally marketed as an antidepressant. Patients with uncontrollable pain sometimes responded to these drugs used in combination.

The afternoon session commenced with two papers on mechanical aspects of pain. Dr P Helliwell (Harrogate) using an arthrograph to measure joint stiffness had found, in agreement with other authors, that only a minority of patients with arthritis can distinguish pain from stiffness. Objective stiffness measured by a mechanical apparatus did not always correlate with the patients' subjective perception of discomfort. Objective stiffness was

related significantly to finger circumference. Studies had been performed on the use of analgesics, non-steroidal anti-inflammatory drugs and on patients before and after arthroplasty. The role of physiotherapy in the relief of pain was then reviewed by Mr J Green (Leeds). A dynamometer had been used to compare the value of home exercises and hydrotherapy in relieving pain. Both gave benefit in the relief of pain, and the benefit of hydrotherapy did not appear to be related to improvement in muscular power.

There followed four papers by anaesthetists, all of whom are involved in the running of pain clinics. Dr T Jack (Leeds) argued that even with the best treatment only a certain proportion of patients would be provided with adequate pain relief. It was important to work from the supposition that the patient was the only person who could accurately depict pain and had to be believed. Intractable pain was defined as 'that for which there is no effective treatment'. If expectations were not unduly high, treatment was more likely to be effective. Anaesthetists had explored many methods of stimulation analgesia, the use of rocking horses being particularly helpful for patients with degenerative joint disease in the spine. Psychological aspects were important and the anaesthetists called on both psychiatrists and surgeons when appropriate. The Leeds clinic had been studying the value of hypnosis in the management of pain. Early results were promising, admittedly in selected patients, and there might be a place for EEG recording in hypnotised patients as a means of further understanding the mechanism of action of this method. Dorsal column stimulation was then reviewed by Dr R Marks (York). Selection of patients for this technique was rigorous. Those with personality aberration or a psychiatric history were excluded. The method was valuable for the treatment of arachnoiditis, failed back surgery syndrome, nerve root adhesion, phantom limb pain, and neuropathic pain but was

not of value for arthritic pain, post-herpetic neuralgia, thalamic or visceral pain. Electrodes were implanted so that their stimulation produced paraesthesia in the area of the patient's pain. The method was expensive and complications included electrodes slipping, cerebrospinal fluid leak, and infection. Magnets and physiotherapy apparatus did not interfere with function. The use of destructive lesions in the management of pain was then reviewed by Dr K Budd (Bradford). Phenol, alcohol, cold, and heat could all be used to cause selective nervous tissue damage. Rigorous selection was again required, and in general this was used for patients in whom all other attempts to relieve pain had failed. Stellate ganglion block and lumbar sympathectomy provided obvious examples of the technique, which was not so applicable for painful lesions in the thoracic region. Dr D Brown (Leicester), working with rheumatology colleagues, then described his experience with suprascapular nerve block in patients with rheumatoid arthritis of the shoulder. A radiofrequency heat lesion was made to the suprascapular nerve in the suprascapular notch and most patients obtained good pain relief and improvement in function. Methylprednisolone was injected simultaneously at the same site, and the audience discussed whether it was this or the nerve block that was the active agent.

In the final paper Dr B Sofaer (Edinburgh), a nurse, argued in favour of closer communication between health professionals in the management of pain. She cited examples in which both nurses and doctors had been guilty of poor communication, and the patients had suffered. The nurse was often in the best position to observe the patient's pain, while the physician was in the position to prescribe or treat in order to relieve it. Only close collaboration would provide optimum control of pain.

The next conference in the series will be held on 5 May 1988 at Harrogate.

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