Objectives To develop management strategies by reviewing evidence base and current practice to increase numbers of patients seen in an orthopaedic clinic and improve the cost effectiveness and quality of health care.

Methods Evidence from literature and current practice by expert opinion was collated and analysed; from which evidence-based guidelines for the physiotherapy management of anterior knee pain (AKP) were formulated. Forty patients who presenting to an Orthopaedic clinic with AKP were assessed by a Clinical Specialist Physiotherapist and offered physiotherapy treatment, according to the guidelines. Management and treatment outcomes were audited.

Results 40 extra new patients were assessed in an orthopaedic clinic over 8 months (Age range 11–53 years, mean 25 years, symptom duration ranges 6 months–16 years). 57% of the patients had not received any previous physiotherapy for their AKP. 3 patients were not offered physiotherapy and 3 were transferred to other physiotherapy departments. 5 did not attend a full course of treatment. 29 completed their treatment. Treatment duration ranged from 4–32 weeks, with a mean of 15 weeks. The number of treatments per patient ranged from 3–12 with a mean of 6.

Treatment was tailored to the individual patient and consisted of education and exercises aimed at improving postural alignment, balance and the timing of the vastus medialis obliquus, gluteal and abdominal muscles. Manual therapy techniques and stretches were used to elongate tight structures e.g. hamstring, gastrocnemius, muscles and ilio-tibial bands and lateral retinaculum. Patello-femoral taping was used in 26% of cases, trigger point acupuncture in 33% of cases to provide some pain relief during their course of rehabilitation and 7% were provided with insoles.

At final assessment of the 29 patients that completed treatment, 52% stated that they were pain free. 22% stated that they were between 70–90% better. 15% stated that they were between 50–70% better. 7% were unresponsive to treatment. A proposal for an integrated care pathway for the management of AKP has been developed from these results and presented to the physiotherapists in Cornwall.

Conclusion Current literature and expert opinion advocates conservative management of anterior knee pain in the form of physiotherapy targeted at reconditioning lower limb musculature to improve patellofemoral biomechanics over surgical intervention. The results of this project support the literature but many patients are not being referred appropriately to Physiotherapists. an integrated care pathway for AKP has the potential to create a co-ordinated cost effective approach to patient care.

Pain: dealing with pain and pain management

HP0019 PHYSIOTHERAPIST/STUDENT FOR THE DEGREE OF MASTER OF SCIENCE

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An investigation on the effect of education or education in combination with physical training on pain experience in women with osteoporosis.

Introduction Pain and fear of fracture are very common among patients with osteoporosis reducing their activity of daily living and quality of life. We have investigated the effect of education or education in combination with physical training in women with osteoporosis.

Methods Women older than 60 years with osteoporosis (N = 49) were enrolled in the study. All were able to walk indoor without technical support. Bone density was assessed using a DXA-machine.

All were hospitalised for five days in a hospital of rheumatology. They were casually put into two different treatment programs:

- Education (n = 26)
- Education in combination with physical train (n = 23)

The education program was provided by a team of professional health workers and had a multifactorial approach to problems experienced by patients with osteoporosis. The training program was conducted by two physiotherapists.

Health was assessed by SF-36 questionnaire at baseline, and then after 3 and 12 months.

Results A multivariate analysis for repeated measurements showed an improvement of bodily pain score of 7.4 (95% CI 2.7–12.1) after 3 months and 9.8 (95% CI 4.2–15.4) after 1 year compared with baseline. There were no significant differences between the groups. Physical activity and social function were also statistical improved at 3 month, but the improvement did not persist for the complete follow-up period.

Conclusion Participation a professional education program reduces the pain experience in women with osteoporosis, and the improvement appear to persist for at least one year. This result needs confirmation by further studies.

HP0020 PAIN TREATMENT OF THE RHEUMATIC DISORDERS WITH ELECTRIC THERAPY

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Pain relief is one of the most important assignments of physical therapy (PT) and for that purpose different procedures have been used. Their advantage is that they have no side effects, which is very important for rheumatic patients, who are forced to take NSAIDs for a very long period.

The aim of this work was to investigate effects of different electric procedures on pain and joint swelling of rheumatic patients.

Material and methods The investigation was conducted on 40 patients with knee osteoarthritis and rheumatoid arthritis. Every knee was treated with different electric procedure. Mean age of patients was 54.6 years (SD 8.9), and mean duration of the illness was 12.1 years (SD 8.7). Interferrent, modulated and galvanic currents have been used. Treatment lasted for four weeks and in that period every patient received 20 therapies. Pain degree has been evaluated according to analogue visual scale - VAS (0–100) before and after the treatment. At the end of the treatment patients and physicians have given their evaluation of the PT effect separately with grades from 1 to 5 (1- poor effect and 5 – excellent effect).

Results All three currents had good analgesic effect and there was a statistically significant difference in the pain evaluation

before and after the application of all electric procedures ($p < 0.001$). By the application of galvanic current knee pain was evaluated as 80.25 before the therapy and it was reduced to 33 after PT. Modulated currents application led to pain reduction from 82 to 33, and interferrent currents application from 88.5 to 37.5.

However there was no significant difference in analgesic effect between the different procedures.

As far as the joint swelling is concerned, it has been reduced for 1–3 cm in 57% of the patients after the application of galvanic current, in 89% after modulated current and in 83% after interferrent current.

Physicians evaluated the effect of the electric therapy with the mean grade of 4.2 by patients and with 4.05.

Conclusion Electric therapy has a statistically significant influence in the pain reduction in rheumatoid patients, but there is not a significant difference between them. It is an inexpensive therapy without side effects and it has to be in use more then it was until now.

HP0021 ACUPUNCTURE IN A RHEUMATOLOGY CLINIC

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Background The first author was asked to set up an Acupuncture Clinic for a limited period, within a Rheumatology Department of Barnet and Chase Farm Hospital Trust. She had been practising acupuncture for fifteen years and had recently joined the department. An audit was taken as there are few published trials on Rheumatology Clinic patients.¹

Objectives

- To assess response of pain to acupuncture, alongside recording patients' analgesic intake.
- To assess whether the duration of pain or x-ray changes denoted a better result.

Method A course of four to six sessions of traditional and myofascial acupuncture was offered, for a specified range of conditions, using electro-acupuncture after the first treatment. Average pain during the day and night was recorded weekly on a scale of 1 to 10, as well as the number and type of analgesics taken. An audit was analysed of the outcome for a series of 41 patients, who had a mean age of 57 years and pain for a mean duration of three years.

Results The mean score for daytime pain fell from 6.8 (SD 1.2) to 4.9 (SD 2.5) points, which is highly significant ($p < 0.001$). A total of 30 (73%) of the patients had a reduction in pain of at least 33% and 22 (54%) had a reduction in pain of at least 50%. Analgesic intake, (without distinguishing between different analgesic medication), was reduced from a mean of 17 (SD 15.3) tablets per week, to a mean of 6 (SD 7.9). Patients with normal x-rays had a much better response to acupuncture than those whose x-rays showed significant degenerative changes.

Conclusions Over 65% of patients referred for acupuncture to a designated clinic showed a significant improvement after treatment and were able to reduce their intake of analgesic drugs. Patients with moderate or severe degenerative changes on x-ray did not respond as well as those with x-rays showing no abnormality.

REFERENCE

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