P70 - THE RESULT OF A SEQUENCED REHABILITATION PROTOCOL FOR ANKYLOSING SPONDYLITIS

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Introduction: Ankylosing spondylitis (AS) is a chronic inflammatory rheumatic disease involving the sacroiliac joints, vertebrae and adjacent joints of the spine and peripheral joints. Nearly 0.9% of the population are estimated to be affected by AS and men are affected two to three times more than women. Symptoms start to appear during young adulthood and usually take many years to manifest radiological changes. To date, AS has no cure, but drug and physical therapy can improve pain, inflammation and other symptoms considerably. The objective of rehabilitation in AS is to improve the physical functioning and allow individuals to handle basic activities of daily living without assistance. However, no studies exist that describe the outcome of a structured rehabilitation protocol in AS.

Aim: The aim of this study was to assess the result of a sequenced rehabilitation protocol for the management of ankylosing spondylitis.

Methods: A total of 37 patients with AS were recruited for this study (36 males, 1 female), with a mean age of 37.3 years (range 22-67). A diagnosis of AS was made by modified New York Criteria. Participants followed a sequenced rehabilitation protocol programme for 60 minutes per day for 3-4 months. The sequenced physiotherapy protocol was as follows: Phase 1: Hot packs, Electrotherapy modalities (US / TENS / IFT), Myotherapy (especially myofascial release and muscle energy techniques), Maitland mobilization (Grade I and II), range of motion exercises of spine and other joints, relaxation training and breathing exercises, taping for pain-relief, sleep hygiene training; Phase 2: Gentle active and passive stretches, postural re-education and ergonomic accessories, taping for proprioception; Phase 3: Aerobic conditioning, cardiovascular and strength training, Yoga; Phase 4: occupational therapy, home exercise program, sporting activities.

Outcome Measures: The outcome measures were VAS for pain and morning stiffness, Bath Ankylosing Spondylitis Functional Index (BASFI) and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI). Measurements were taken before and after the treatment and follow up was done 6 months later. The BASDAI index is self-administered instrument and is specific to AS. This instrument measures both qualitatively and quantitatively the problems in fatigue, spinal and peripheral joint pain, morning stiffness and localised tenderness. It consists of 6 to 10-cm VAS. (26,27). The BASFI is a self-assessment functional index. There are 8 questions all relating to AS and 2 questions regarding the patient’s ability to cope with daily life. Each question is answered on a 10-cm VAS, the mean of which gives the score for BASFI (0–10). (24,25).

Results: The sample included 37 patients (36 males, 1 female), with a mean age of 37.3 years (range 22-67). 30 were IT professionals, 3 retired, 1 HR manager, 1 marketing professional, 1 government official and 1 academic professor.

The presenting symptoms were low back pain, stiffness and disturbed sleep in all 37 patients. The other symptoms included pain in single lower limb (n=15), both lower limb (n=14), neck and upper back (n=10), pain and swelling in knees and ankles (n=5). The pain was typically worse on sitting and lying down. Numbness, tingling and burning in lower back and/or legs was present in 8 patients. 10 subjects had advanced bony ankyloses of spine and 5 of the hips. The mean duration of symptoms at the start of rehabilitation was 5 years and the mean duration of symptoms before a diagnosis was made was 4 years. The associated co-morbidities were hyperuricemia (n=5), hypovitaminosis D (n=5), prolapsed lumbar intervertebral disc (n=4), osteoporosis (n=3), osteopenia (n=2), glomerulonephritis (n=2), rheumatoid arthritis (n=2) and systemic lupus erythematosus (n=1). 10 of these patients were already on Disease Modifying Anti Rheumatic Drugs such as Methotrexate, Sulfasalazine and Leflunamide and they continued the medication during the course of the study. VAS for pain and morning stiffness (p<0.01), BASFI (p<0.01) and BASDAI (p<0.01) showed a significant improvement after treatment and was maintained at 6 months.

Conclusion: In conclusion, patients with AS reported significant improvements in pain, spinal mobility, chest expansion and physical functioning as a result of the sequenced rehabilitation...
programme. The improvements in the patient's health status and spinal mobility measures were maintained at 6 months.

**Keywords:** ankylosing spondylitis, sequenced rehabilitation protocol, physiotherapy

**References:**

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**P71 - OUTCOME OF A MULTIDISCIPLINARY REHABILITATION PROTOCOL FOR FAILED BACK SURGERY SYNDROME**

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**Introduction:** Failed back surgery syndrome (FBSS) is defined as a group of conditions that causes persistent or recurring low back pain, with or without sciatica following one or more spine surgeries. FBSS is a generalised term to describe the patient's condition post spine surgery with unsuccessful result as the patient continues to feel pain on the back or on the legs for more than a year. Surgical interventions for low back pain (LBP) are on the rise, but even after the surgery, a significant number of individuals with LBP continue to remain symptomatic. It is reported that about 53% of all LS-51 disc surgeries fail to produce relief of symptoms. In such cases, the patient often ends up in worse condition than before the operation. Non-surgical rehabilitation is the preferred approach after a failed back surgery syndrome (FBSS).

Many factors are responsible for FBSS like surgery related factors (technique, recurrent disc herniations, neuropathic pain with fibrosis), age, lifestyle (smoking, alcohol, lack of physical fitness), psychological factors (anxiety, depression, sleeplessness) and other patient related factors. It has been estimated that after any spinal surgery, nearly 20% of the patients will require secondary surgery due to persistence of pain or for complications due to surgery. After secondary surgery, the success rate has been noted to reduce by 30%, and after the third surgery by 15% and 5% by the end of fourth surgery.

**Aim:** There is a paucity of studies which have focused on the outcome of a sequenced rehabilitation protocol following FBSS. Hence, the aim of the study was to study the effectiveness of a sequenced, multidisciplinary rehabilitation protocol for FBSS.