To evaluate the effectiveness of an integrated approach for severe acute low back pain (ALBP) with sciatica physiotherapy management in PWH modern acupuncture in adjunct with manual therapy and corrective exercises - Acutherapy

Chan SM(1)

(1) Physiotherapy Department, Prince of Wales Hospital

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Introduction
Majority of sciatica (>90%) is caused by herniated disc with nerve root compression. It is very difficult to manage patients with ALBP with severe sciatica with manual therapy or exercise therapy, as their pain tolerance is very low. Acutherapy consists of the combined use of manual therapy, modern acupuncture and corrective exercise. It has been recently promoted as the treatment of musculoskeletal pain conditions with evidence-based support. Modern acupuncture is an established adjunct analgesic modality for acute pain treatment while manual therapy addresses the musculoskeletal and myofascial system that improves the flexibility and mobility of muscles and joints in the body. Together with the individually prescribed corrective exercises aiming at improving patients' posture and body biomechanics, this comprehensive therapy works synergistically in optimizing back conditions for patients who are suffering from ALBP with severe sciatica.

Objectives
To evaluate the effectiveness of acutherapy for patients with ALBP and severe sciatica condition on subjective pain intensity and back disability

Methodology
Patients diagnosed with ALBP with severe sciatica referred for physiotherapy with high disability (Roland Morris Back Disability Questionnaire > 16) were given a course of acutherapy. The treatment program included modern acupuncture, manual therapy and corrective exercises provided by an experienced physiotherapist in PWH. Acupuncture points were chosen based on specific trigger points, myofascial lines and anatomical basis in segmental approach. Consent for acupuncture was given with contraindications screened and precautions taken. Outcome measures included subject pain intensity-Numeric Pain Rating Scale (NPRS), back disability-Roland Morris Back Disability Questionnaire (RMDQ), subjective overall improvement-Numeric Global Rating of Change Scale (NGRCS) before and after
acutherapy, and the total number of treatment sessions given. NPRS and RMDQ pre- and post-acutherapy were compared with paired t-test.

**Result**
A total of 20 patients with ALBP with sciatica (13 female, 7 male; mean age = 56.3) were given acutherapy. The mean of NPRS before and after acutherapy was 8.45 ± 1.5 and 2.65 ± 1.5 respectively (mean difference 6.12; p < 0.005). Mean RMDQ before and after acutherapy was 19.38 ± 2.3 and 5.77 ± 3.7 respectively (mean difference 13.62; p < 0.005). The mean NGRCS after acutherapy was 6.7. Acutherapy was shown to be effective in improving subjective pain intensity (NPRS) and back disability (RMDQ) in patients with ALBP acute severe sciatica. Only short-term and immediate improvement was shown in the current clinical case study, long-term follow-up (6-months post treatment) would be evaluated within 2018.