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**Effectiveness of Bowen Therapy in reducing pain, improving Physical Function, Activities of Daily Living and Work in people with Distal Radius Fracture, a pilot study randomized controlled trial**

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**Introduction**
Bowen therapy (BT) is developed by an Australian, Tom Bowen. BT is a new treatment technique to Occupational Therapy in order to ease pain by applying gentle move over the fascia to initiate the relaxation & flexibility of muscles, and regain the functions. In view of the previous studies, BT has effect in pain relief and maximized the functions of some musculoskeletal disease. However, there is limited study to investigate BT in treating patients with distal radius fracture (DRF). So our department keen to conduct a research to achieve the holistic treatment for patients with DRF.

**Objectives**
Those patients with DRF may have limitation to regain their premorbid function and the sign and symptoms persisted, which largely hinder their daily activities. In view of the limitation, we decided to apply a new treatment technique: BT, to achieve the improvement of pain, physical functions, activities of daily living (ADL) and work of patients with DRF. In order to increase their independency to return to their previous role.

**Methodology**
This is a pilot study randomized control trial with sample size 20. Patient included in this study had fulfilled the following inclusion criteria: they aged above 18, able to fill in written consent, diagnosed with DRF and received conservative treatment, either cast or splintage. Patients with surgical treatment, delayed treatment union and with associated injury would be excluded. Eligible subjects will then be randomized by a
computer generated table into 2 groups (BT and control group). Subjects in BT group received BT once per week, while subjects in both groups received remedial training twice per week, all treatments started at post-injury 8 weeks (T0). Outcome measures were being assessed at post-injury 8 weeks (T0) & post-treatment 2 months (T1), including resting & exertion pain, AROM, power grip, lateral pinch & DASH score. Statistical analyses with SPSS-19. Mann-Whitney test was used to measure the homogeneous in both groups, while Wilcoxon rank sum test was used to compare all outcome measures from T0 to T1 between 2 groups.

Result
Overall 20 patients (9 patients in BT group & 11 patients in control group) were recruited in this study. All subjects with age range 39-90 year-old and with average age 48 year-old, male to female ratio is 3:17, 14 of them are housewife. Right to left involved hand ratio is 9:11. Patients received conservative treatment in splintage to cast ratio: 9:9. There was no significant difference (p>0.05) in demographic data & all outcome measures between 2 groups at baseline (T0), which indicated 2 groups were homogeneous. There was significant difference (p<0.05) in exertion pain in BT group from T0 to T1, which proved that BT was more effective in relieving the exertion pain. Significant effect (p<0.05) over time for most of the parameters were found in both groups, including all AROM, power grip, lateral pinch & DASH score, which shown both treatments were effective for DRF patients. However, P value (<0.05) in BT group was much smaller than control group, also a significant greater percentage in decreasing total DASH score was found in BT group (79%) than in the control group (56%), which give evidence that BT is more effective in easing pain, improving range and strength and functions with DRF patients than those treated with the remedial alone.