Nine months of Fluoxetine Aids in the Reduction of Negative Psychiatric Symptomology Following a Traumatic Musculoskeletal Injury

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Purpose: Negative psychiatric symptomology develops post-injury in close to 50% of individuals who sustain a traumatic musculoskeletal injury. We evaluated the efficacy of immediate fluoxetine therapy versus calcium treatment in improving mental health scores in the post-injury period for patients with musculoskeletal trauma.

Methods: This prospective study randomized patients to 9 months of fluoxetine or calcium following a high-energy traumatic musculoskeletal injury. Post-traumatic stress symptomology was assessed using the PTSD Symptom Scale Self-Report Version (PSS-SR) with higher scores indicating worsened symptoms.

Results: We enrolled 68 subjects (males: 38; females: 30) in the study; 33 subjects were randomized to fluoxetine and 35 to calcium. Median PSS-SR scores at 6 weeks (n = 45), 6 months (n = 33), and 1 year (n = 27) were 9, 4, and 3 for the fluoxetine group and 8, 11.8, and 8 for the calcium group (see figure). The Hodges-Lehmann median difference between the groups (fluoxetine and calcium) was 0 (95%CI: –6,5) at 6 weeks; –5 (95%CI: –1,3) at 6 months, and –3 (95%CI: –18,3) at 1 year.

Conclusion: While the fluoxetine group showed a 66% decrease in PSS-SR scores from 6 weeks to 1 year, the calcium group showed no improvement. Taking fluoxetine for 9 months post injury may clinically decrease the negative psychiatric symptomology that is common following a traumatic musculoskeletal injury.