## P-1370 - EFFECTIVENESS OF TRANSCRANIAL MAGNETIC STIMULATION IN TREATMENT OF DEPRESSED PATIENTS WITH CHRONIC PAIN

G.Musher<sup>1</sup>, V.Bokarius<sup>2</sup>, A.V.Bokarius<sup>3</sup>

<sup>1</sup>Galaxy Medical Center, Los Angeles, <sup>2</sup>Comprehensive Care Consultants, San Mateo, <sup>3</sup>Medical School, University of California Irvine School of Medicine, Irvine, CA, USA

Treatment of resistant depression is known to be a challenging task; especially in patients with comorbid chronic pain. Efficiency of Transcranial Magnetic Stimulation (TMS) was demonstrated in treatment of medication resistant Major Depressive Disorder.

**Objectives:** To evaluate the effectiveness of TMS in depressed patients with chronic pain in a naturalistic outpatient treatment setting.

**Aims:** To evaluate the significance of improvement in depressive symptoms in response to TMS course and to compare the response of two groups of patients: with changes in psychotropic medications during the TMS course and without changes.

A retrospective cohort study queried the database of patients with treatment resistant depression and comorbid chronic pain. The severity of depressive symptomatology was assessed with 21-item Hamilton Depression Rating Scale (HAM-D) before and after TMS. Patients were distributed to Group A (N=53; with changes in psychotropic medications) and Group B (N=21; without changes in psychotropic medications). Data were charted and analyzed by t-tests and percent change.

HAM-D percent changes between Groups A and B revealed a significant difference (p < 0.01). Based on Group B results, a population can expect at least 30% decrease in

HAM-D scores following TMS (p< 0.05). Conversely, according to Group A, 30% decrease cannot be expected (p< 0.05). Furthermore, Group B demonstrated greater percentage of patients with >50% decrease in HAM-D scores over Group A.

TMS is effective in decreasing symptoms of depression in patients with chronic pain.

TMS was more effective in patients who did not have changes in psychotropic medications during treatment.