

Trigeminal nerve stimulation (TNS) is a new and non-invasive neurostimulation technique. It has shown therapeutic effects in epilepsy, major depressive disorder and attention-deficit and hyperactivity disorder. Case reports indicate that TNS could also be effective in the treatment of post-traumatic stress disorder, panic disorder (PD), generalized anxiety disorder (GAD) and social anxiety disorder (SAD). The objective of this study is to ascertain if TNS is an effective treatment with high tolerability for patients with PD, GAD and SAD. This is a randomized controlled double-blind study of TNS as treatment for PD, agoraphobia, SAD and GAD. Sixty-two patients with mixed anxiety disorders will be recruited for this study. Patients will be assessed with clinical scales at baseline, 2 weeks, 4 weeks, 6 weeks, endpoint (8 weeks) and follow-up (10 weeks) to measure clinical improvements. Raters and patients will fill in clinical scales to assess severity and improvement. Raters will be blinded regarding the real or sham stimulation. Randomization will determine which patients will receive real stimulation or sham stimulation. The subjects will place electrodes on the forehead to stimulate V1 branches of the trigeminal nerve bilaterally for approximately 8 h per night, every night for 8 weeks. Current will be adjusted to maintain levels of stimulation that are clearly perceptible but not uncomfortable (EMS7500 Stimulator). For subjects receiving active neurostimulation the stimulation parameters will be similar to those previously described in other TNS studies. The sham neurostimulation will consist of stimulation for 60 seconds and then the stimulator turns off without the subject's knowledge