Proposal for Research Elective Project

The proposal for the MED 1800 Research Elective project needs to give the general directives that will be investigated during your time in the elective. The description needs to detail your study and what you wish to accomplish. This should include an overview of the hypothesis, the methods that will be employed, the expected outcomes, and analytic methods that will be used. Proposals should be roughly 350 words and should be specific about your part in the research.

Below is an example of a well-thought Proposal for a Research Elective

Stellate Ganglion Block as Treatment for Posttraumatic Stress Disorder

Stellate Ganglion Block (SGB) is a procedure that has been in use for over 100 years for treating multiple painful conditions. The physiologic effect by which SGB is able to ameliorate the symptoms in these conditions is not fully understood, but it is thought to be due to a reduction in sympathetic outflow through the Stellate Ganglion. There have been several case reports of the successful use of SGB for Posttraumatic Stress Disorder (PTSD), but none have been randomized, controlled clinical trials. Studies have shown that the prefrontal cortex (PFC), hippocampus, and amygdala are clearly involved in the pathophysiology of PTSD. Animal studies demonstrate that under uncontrollable stress, excess levels of catecholamines, specifically norepinephrine, rapidly impair PFC and hippocampus function, which in tum lead to impaired function of the amygdala. We hypothesize that the reduction in sympathetic outflow that takes place with SGB may have favorable effects on the PFC, hippocampus, and amygdala, and these effects may reduce the symptoms of PTSD. A new treatment for PTSD is necessary because many reviews have demonstrated that the current treatment for PTSD is suboptimal. Reasons range from the ineffectiveness of treatments to a reluctance of veterans to participate in, or complete treatment.

The proposed benefits to patients in this study are the rapid reduction in their PTSD symptoms. The proposed benefits to the general population of PTSD patients are the availability of another type of treatment for those who have failed current treatments or have found current treatments to be undesirable. Risks to the patients in the study are the risks inherent in administration of a SGB, which are minimal. SGB has been demonstrated to be a very safe procedure. One right sided SGB will be performed on each patient with either 5ml bupivacaine 0.250/0 or 5ml saline under fluoroscopic guidance.

20 patients age 21 to 65, who meet the diagnostic criteria of military service related PTSD diagnosed by a structured interview with a psychiatrist, diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders (fourth edition) (DSM-IV), and with a clinician administered PTSD scale (CAPS) score greater than 50, will be enrolled in the study. The CAPS is considered the gold standard in PTSD assessment. Data collected will be age, sex, current and prior medications and other treatments for PTSD, and CAPS score. CAPS will be administered for enrollment, and also after treatment with SGB. Analysis of data will be with at-test.