

## **P-987 - INVESTIGATION OF AUTONOMIC RESPONSE CHANGES TO TRAUMATIC STIMULI IN POSTTRAUMATIC STRESS DISORDER USING NEUROVISCERAL INTEGRAL MODEL**

Z.Yelboga<sup>1</sup>, N.Lapsekili<sup>2</sup>, C.Celik<sup>3</sup>, K.N.Özmenler<sup>3</sup>

<sup>1</sup>Sivas Military Hospital, Sivas, <sup>2</sup>Corlu Military Hospital, Tekirdag, <sup>3</sup>Gülhane Military Medical Academy, Ankara, Turkey

**Introduction:** Studies support the view that the balance of autonomic nervous system shifts to sympathetic direction and that there is a suppression on the parasympathetic system in Posttraumatic Stress Disorder(PTSD).

**Objective:** Basal and post-traumatic-stimulus measurements were made with HRV (Heart Rate Variability) on soldiers diagnosed with PTSD. The data were compared with control group.

**Methodology:** The sample of this study consisted of 27 patients diagnosed with PTSD according to the DSM-IV criteria and 23 healthy control. Holter recording device was installed in all subjects for 2 hours. Then a slide show was shown with a total of 120 pieces of traumatic experience photographs about six minutes in duration. And Holter recording was continued for another 2 hours.

**Results:** After exposing to the photographs, in control group: RMSSD, NN<sub>50</sub> Count and pNN<sub>50</sub> parameters of HRV increased as an indicator of parasympathetic activation; SDANN and SDNN decreased as an indicator of dominance of parasympathetic system to sympathetic system. But in patient group after exposing to the photographs; SDNN and SDANN increased as an indicator of sympathetic activation and RMSSD and pNN<sub>50</sub> decreased as an indicator of dominance of sympathetic system to parasympathetic system.

**Conclusion:** Patient group results indicate parasympathetic failure. This was thought to be related to insufficient prefrontal inhibition. HRV is thought to be used for detection of short-and long-term change of the sympathovagal balance. It is evaluated that the severity of autonomic symptoms may have predictive about the development of the disease and may be a guide for treatment.