POST-TRAUMATIC STRESS DISORDER IS ASSOCIATED WITH INCREASED INCIDENCE OF INSULIN RESISTANCE AND METABOLIC SYNDROME

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Background: Insulin resistance (IR) increases atherogenesis and atherosclerotic plaque instability and further increases risk of myocardial infarction, but its potential association with Post-traumatic stress disorder(PTSD) has not been evaluated. This study assessed the association of PTSD with incidence of IR and metabolic syndrome.

Methods: This study included 207,954 Veterans at Southern California and Nevada(age:60±14,93% male,without known coronary artery disease and diabetes mellitus) with and without PTSD who were followed for the median of 2-years. All data were obtained through VA electronic medical records. The incidence of IR(defined as triglyceride over HDL-c ratio≥3.8) and metabolic syndrome(defined based on NCEP ATP III guideline) were assessed.

Results: There were no differences in age, gender, lipid profile, fasting blood sugar and conventional risk factors among those with and without PTSD at baseline(p>0.05). At follow-up, IR was significantly higher in PTSD as compared to non-PTSD(34.8% vs. 19.3%,p=0.00001). Similarly, metabolic syndrome was significantly higher in PTSD as compared to non-PTSD(52.5% vs. 37.3%,p=0.00001). Adjusted incidence rate of IR and metabolic syndrome attributable to PTSD was 49% and 41%, respectively.

Conclusion: PTSD is independently associated with incidence of IR and metabolic syndrome.