

Research - R212

Poster

Abstract Title:

Mental health co-morbidities of service members with extremity vascular injuries acquired in Iraq and Afghanistan

Authors:

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Background & Purpose:

Extremity vascular injuries account for 79% of the vascular injuries of the wounded in the Iraq War and the War in Afghanistan. Many of the wounded service members have polytrauma including mental health co-morbidities. Although vascular injuries are often apparent in the symptoms of exsanguinations, the symptoms of mental health injuries are frequently less evident. The traumatic physical and mental injuries result in life-altering modifications to daily living. This mental health concerns further complicate follow up care for the patient population.

Study/Project Design:

The study was conducted as a retrospective cohort study.

Setting:

The study was performed at a government funded surgical research facility.

Sample:

1087 patients were identified with extremity vascular injuries. 570 patients were categorized with a diagnosis of mental health co-morbidities.

Procedures:

This study was conducted under a protocol reviewed and approved by a local Institutional Review Board. The Department of Defense Trauma Registry (DoDTR) was queried with ICD9 and AIS codes specific to vascular injuries. The DoDTR is part of the Joint Trauma Theater System (JTTS). The query identified 3,560 individuals with vascular injuries. As part of a larger study, research nurse coordinators perform extensive retrospective medical chart reviews guided by an algorithm. During chart reviews, the nurses use databases such as Patient Administration Systems and Biostatistics Activity (PASBA). These chart reviews are ongoing. As of November 2012, 3,438 (97%) of charts in the database had been reviewed. Of these, 1087 (31%) are identified as having a qualifying extremity vascular injury.

Findings/Results:

The mental health co-morbidities identified in the study are anxiety, depression, post traumatic stress disorder, adjustment disorder, substance abuse/ dependence, and sleep disorders. In the 1087 population sample, 570 (52%) were identified with one to five mental health disorder. 391 (36%) were diagnosed with one to two mental health disorder. 157 (14%) hold three to four mental health diagnosis. 22 (2%) possess five or more mental health diagnosis. Post traumatic stress disorder (PTSD) was the most common diagnosis. 351 (32%) were diagnosed with PTSD. 197 (18%) were diagnosed with sleep disorders. 196 (18%) were diagnosed with adjustment disorder. 193 (18%) were diagnosed with depression. 174 (16%) were diagnosed with anxiety. 90 (8%) were diagnosed with substance abuse/ dependence. The typical subject had an Injury Severity Score (ISS) of less than 16 (51%) and had at least one attempt of limb salvage (74%).

Discussion/Conclusions/Implications:

The data demonstrates a significant portion of service members with extremity vascular injuries, also develop mental health disorders. While the extremity vascular injuries and the subsequent repairs are life altering events, the associated mental health co-morbidities result in significant changes to mood and behavior resulting in notable variations in their daily lives. The associated mental health co-morbidities complicate follow up care and indicate a definite need for a case manager and a polytrauma team. Further research is required to explore follow up care compliance in the population.