A Longitudinal Investigation of Major Combat Limb Injuries: The Regional Anesthesia Military Battlefield Pain Outcomes Study (RAMBPOS)

Rollin M. Gallagher, MD, MPH1,2, COL Chester Buckenmaier III, MD, Rosemary C. Polomano, PhD, RN3; Wensheng Guo, PhD4; Yolanda S. Williams, MPH1,2; and John T. Farrar, MD, PhD5

Injury Care Medicine, Philadelphia VA Medical Center, Philadelphia, PA 19141. (Includes Amputations)

Department of Psychiatry, Department of Anesthesiology and Critical Care, Department of Epidemiology and Biostatistics, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA 19141.

Defense and Veterans Center for Integrative Pain Management, Walter Reed National Military Medical Center, Rockville, MD 20886.

Department of Behavioral Health Sciences, University of Pennsylvania School of Nursing, Philadelphia, PA 19104.

BACKGROUND

Studies have reported variable acute pain outcomes and long-term pain outcomes. However, reports of long-term pain in military service members following severe injury are sparse. Little is known about intermediate pain outcomes in military service members following severe injury.

METHODS

A longitudinal, repeated measures design was used to collect participant-reported outcomes over a period of up to two years. Sample

Ineligible participants included a cohort of severe injury subjects with severe injury subjects with the most severe injuries. 

Descriptive characteristics of 281 enrolled participants (n=281). Sex: Male 97.1%, Female 2.9%. Median age of TOPS participants (n=281) was 28.3 yrs. ± 7.2 (range 18.6 to 56.6 yrs.)

When stratified by level of injury severity, overall pain interference at Baseline was greatest for participants with the most severe injuries. When compared to Baseline, participants reported significant decreases in pain interference within the first 3 months following injury. However, pain interference with general activity and overall pain interference (average of time since pain interference worse time) remained in the mild range (4) and improved even more over time compared to Baseline (p<0.05). 

BEHAVIORAL HEALTH OUTCOMES

Compared to Baseline, participants reported a significant decrease in TIPS measures at quarterly visits, including post-traumatic stress disorder, depression, anxiety, and pain interference. In addition, persistent pain in this cohort indicates the need for ongoing pain care throughout rehabilitation and social reintegration.

CONCLUSIONS

ABSTRACT

Pain intensity, Oucher pain, unipolar pain, treatment, and social function (NCS-R-11).

The Regional Anesthesia Military (RAMBPOS) study was a longitudinal study of acute and long-term pain outcomes in military service members following severe injury.

To compare baseline measures of pain interference, the Brief Pain Inventory (BPI) was used at each time point to baseline estimates.

How Unpleasant Pain Is

Months from Start of Rehabilitation

How Intense Surface Pain Is

Months from Start of Rehabilitation

NEUROPSYCHIC PAIN SCALE

Compared to Baseline, participants reported a significant decline (p<0.05) in NPS scores, particularly mild and severe levels of PTSD, indicate the need for comprehensive behavioral health care in the early generation of U.S. military casualties.

RESULTS

Men 170 (60.4%)

Women 111 (39.6%)

Total 281 (100.0%)

Notes: All data is presented as mean ± SD (range) unless otherwise noted.

Midsignificantly different at all time points in comparison to baseline

Pain Interference Subscale (Left Y Axis)

Pain Intensity (Left Y Axis)

BPI-Diaped Pain Intensity Mean Scores Stratified by Injury Severity Score (N=281)

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TABLE 1: STUDY SAMPLE CHARACTERISTICS

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