DEVELOPMENT AND MAINTENANCE OF MODERATE-TO-SEVERE NEUROPATHIC PAIN FOLLOWING TRAUMATIC MUSCULOSKELETAL INJURY

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INTRODUCTION / AIM

Traumatic musculoskeletal injury (TMsI) often leads to chronic pain that is functionally impairing, however, little is known about the quality of the pain (e.g., neuropathic, nociceptive). The aim of the current study is to identify predictors of group membership for patients with differing moderate-to-severe neuropathic pain outcomes.

METHODS

A prospective, longitudinal study was used to follow 205 patients (67.80% male, mean age = 43.02 years, SD=19.90, mean Injury Severity Score of 16.67, SD=8.97) during hospitalization (T1) and at 4 months (T2) post-injury. Data was collected on mechanism of injury, injury severity, pain, anxiety, depression, and posttraumatic stress. Moderate-to-severe neuropathic pain was defined by a score of 12d on the sLANSS and a pain score 4d on the BPI.

RESULTS

11% (n=13) of patients developed moderate-to-severe neuropathic pain by T2 (i.e. not present at T1) and 21% (n=26) had these symptoms persist for 4-months following injury (i.e. present at T1 and T2). Significant predictors of the development and maintenance of moderate-to-severe neuropathic pain included high levels of general anxiety while in-hospital following injury (p <.001) and symptoms of posttraumatic stress 4-months after injury (p <.001).

DISCUSSIONS / CONCLUSIONS

Thirty percent of patients who sustained a TMsI went on to develop moderate-to-severe neuropathic pain 4-months after injury. High levels of general anxiety and symptoms of posttraumatic stress significantly predicted the development of chronic pain over and above pre-existing factors, such as diabetes, and surgical interventions. Research is needed to determine the best treatment approaches for TMsI patients.

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