

ADVERSE EVENTS ASSOCIATED WITH THERAPEUTIC DRY NEEDLING

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ABSTRACT

Background: There is a paucity of literature about the adverse events associated with Therapeutic Dry Needling (TDN). Much of the literature surrounding adverse events associated with TDN has been extrapolated from the acupuncture literature. Given that acupuncture and TDN are distinctly different in their application and proposed mechanisms, adverse events associated with TDN should be examined specifically.

Purpose: To determine and report the type of adverse events associated with the utilization of TDN.

Study Design: Prospective Questionnaire

Methods: Four hundred and twenty physical therapists participated in this study. Information related to minor and major adverse events that occurred during 20,464 TDN treatment sessions was collected. Each physical therapist respondent was asked to fill out two weekly self-reported electronic surveys over a six-week period. One survey was related to “minor adverse events” (i.e. pain, bleeding, bruising), while the other was related to “major adverse events” (i.e. pneumothorax, excessive bleeding, prolonged aggravation). Following the six-week period, descriptive statistics were used to describe the adverse events (AE) associated with TDN and calculate the frequencies of those events.

Results: A total of 7,531 minor AE's were reported, indicating that 36.7% of the reported TDN treatments resulted in a minor AE. The top three minor AE's were bleeding (16%), bruising (7.7%), and pain during dry needling (5.9 %). The average ratio of minor AE's for all respondents across all weeks was 0.53 or approximately one event for every two patients. Twenty major AE's were reported out of the 20,494 treatments for a rate of <0.1% (1 per 1,024 TDN treatments). No associations were noted between the frequency of adverse events and the number of patients treated, practitioner age, level of education, years in practice, level of training or months experience with dry needling.

Conclusion: Expected minor AE's such as mild bleeding, bruising, and pain during TDN were common and major AE's were rare. Physical therapists and other medical practitioners need to be aware of the risks of TDN. Based on the findings of this study the overall risk of a major adverse event during TDN is small.

Key Words: Adverse reactions, dry needling, movement System, safety

Level of Evidence: 3, survey research

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