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Presentation 8

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Title: Persistent Musculoskeletal and Neurologic Complications after Snakebite

Background: The long-term complications after a Crotalinae species snakebite are poorly understood. This impacts a physician's ability to have a scientifically-based discussion with snake bite patients about their prognosis for long-term disability. Few studies exist describing long-term sequelae with reported prevalence ranging from 3.2% to 46%, but without accounting for differences in. Aside from these studies, there are a small number of case reports that report complex regional pain syndrome and carpal tunnel syndrome that have developed as a consequence of a snakebite.

Aim: The aim of this study is to describe the prevalence of snakebites which result in prolonged musculoskeletal dysfunction, including pain, sensory deficits and functional impairment as defined by the quick Disabilities of the Arm, Shoulder and Hand (qDASH) questionnaire or the Lower Extremity Functional (LEFS) Scale at 0, 3, 6, 9 and 12 months after the snakebite.

Research Methods: We are planning a prospective cohort study of patients older than 1 years who were bitten by a snake, and for whom our poison center was consulted. Participants will be called and surveyed at the time of discharge as well as at 3, 6, 9 and 12 months post snakebite. They will be asked general questions about their pain, overall limb function, pain medication use, as well as questions from the qDASH and LEFS which will provide a validated quantifiable means of trending changes over time.

Major Limitations/Questions: The major limitation of this study is that we are not objectively evaluating the study participants in person. Instead we are relying on patient questionnaires and validated functional scores to track their pain and limb function over time. We are unable to used specialized tests in order to determine a precise level of dysfunction. We will also rely heavily on study participants to provide us with any formal diagnosis related to their snakebite, as we will not have access to their medical records. Lastly, persistent long-term complications may be rare, and one year of enrollment may not produce a large enough number to adequately assess the true prevalence of persistent snakebite complications.