Effects of Pre-Injury Migraine Frequency on Post-Traumatic Headache and Post-Concussion Symptoms in the General Adult Population: The Toronto Concussion Study

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UHN Toronto Rehabilitation Institute

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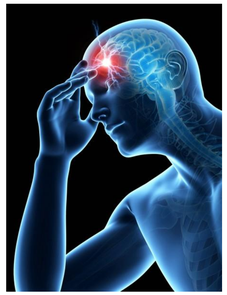
UHN Hull-Ellis Concussion and Research Clinic

A head start on recovery.

Introduction

- >150, 000 residents of Ontario are diagnosed with a concussion every year
- Post traumatic headache (PTH) is a very common symptom after a concussion
- Pre-concussion migraine appears to be a risk factor for the development of acute post-traumatic headache (PTH) and the development of persistent post-concussion symptoms.
- Recovery trajectory of PTH in the general adult population has not been well

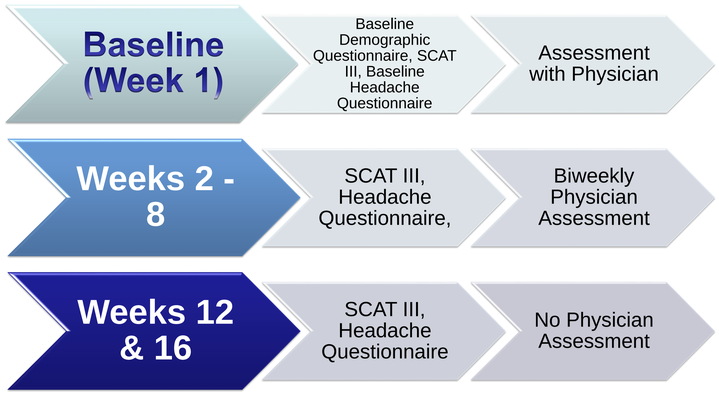


Objectives

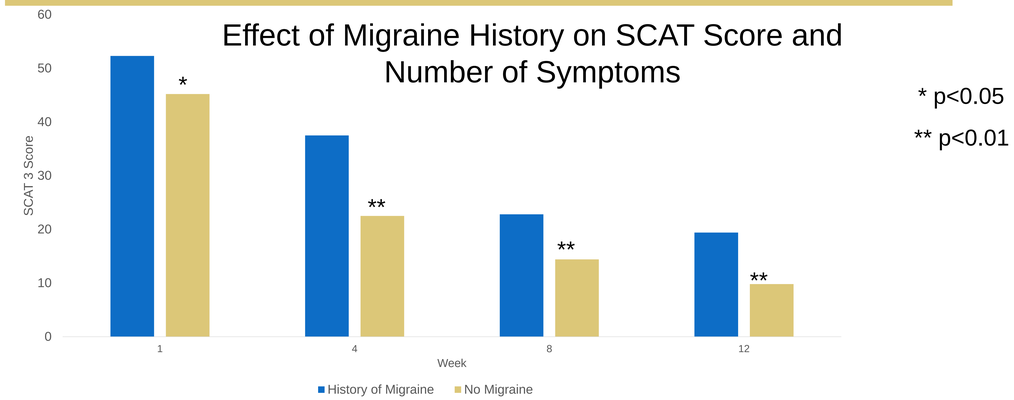
To characterized prospectively PTH and the effect of pre-injury headache and migraine history.

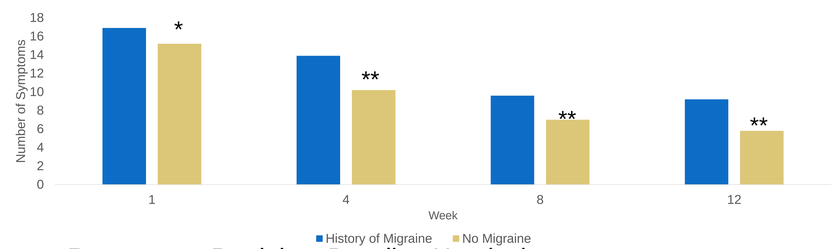
Methods

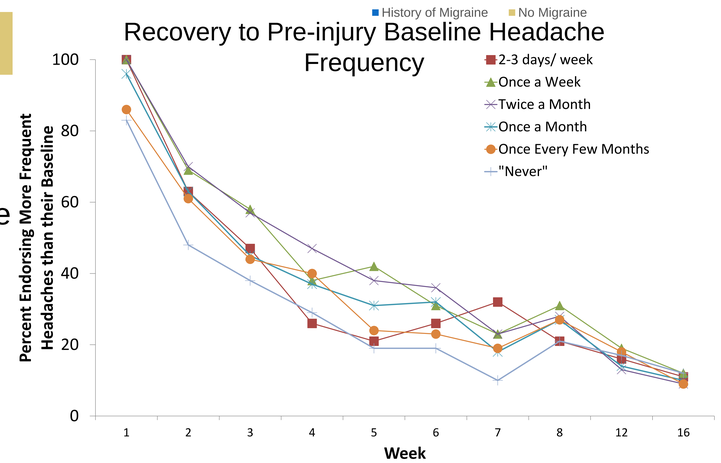
- Prospective naturalistic cohort of adults (17-85 yrs) diagnosed with a concussion at a referring Emergency Department (ED) and seen within 1 week of injury
- Work and motor vehicle collision related causes of injury were excluded



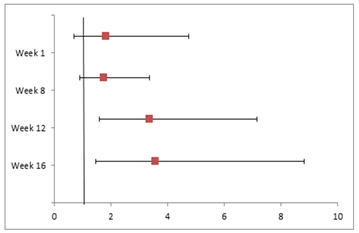
Results







Pre-morbid Migraine and Risk of Headache Endorsement



In a general adult population with a concussion **>85% of those with PTH returned to their pre-injury headache baseline within 4 months of their concussion** though people with **premorbid migraine were more likely to have prolonged PTH recovery and more severe concussion symptoms**

References

1. Langer et al JHTR 2020
2. Gladstone Headache 2009
3. Langer et al Cephelalgia 2022

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