



UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

33rd

M S R D

MEDICAL STUDENT RESEARCH DAY

Conference
Booklet

2019

Poster Abstracts:
Students from
Community
Of Support
COS-1 to COS-5

Booklet pages 221-226

TERRESTRIAL ARACHNID ENVENOMATIONS FROM SPIDERS AND SCORPIONS: A SYSTEMATIC REVIEW OF ENVENOMATION MANIFESTATIONS, THERAPEUTICS, AND ANTIVENOM ACCESSIBILITY

A. Mukkala¹, C. Lecce¹, A. Khatib¹, M. Klowak¹, P. Challa¹, T. Chong-Kit¹, E. Shao¹, J. Kwan¹, A. Boggild¹

¹Tropical Disease Unit, Toronto General Hospital, Toronto, ON

Members of the class Arachnida are eight-legged arthropods that include spiders (Araneae) and scorpions (Scorpiones). With increased human migration and transcontinental shipment of produce from the tropics, the incidence of arachnid envenomations may increase in non-endemic areas. We aim to synthesize existing evidence around prevention and treatment of arachnid envenomations into a clinical resource, including provision of information on access to, and indications for, antivenom. For the systematic review, we will include observational studies, case reports, case series, and cohort studies, as well as clinical trials, and antivenom safety, tolerability, and efficacy. Molecular epidemiology and purely mechanistic pathogenesis studies were excluded. The GRADE approach will be used to assess quality of studies reporting therapeutic interventions. Evidence will be summarized using descriptive measures for each intervention type. Meta-analysis will be planned if sufficient efficacy measures exist. 961 MEDLINE articles, 1053 PubMed, 1486 EMBASE, 0 CIDR and 149 TOXLINE records were retrieved for title and abstract screening; after a multi-step de-duplication pipeline, 1928 remained. Data will be grouped and summarized for ease of clinician use by prevention and therapeutic strategies including antivenom, and according to geographic location and species. Increased transcontinental movement of people and tropical produce has facilitated importation of arachnids to non-endemic regions where clinicians lack familiarity with envenomation syndromes and appropriate therapeutics. Synthesizing the current evidence around therapeutic strategies for arachnid envenomations can inform the development of appropriate treatment and prevention protocols.



UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

33rd

MSRD

MEDICAL STUDENT RESEARCH DAY

2019