ORAL PRESENTATIONS

[ID-O#069] Low-dose versus high-dose antivenom in the treatment of hemotoxic snake bites: A systematic review and meta- analysis.

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Aim and objectives: We conducted a systematic review and meta-analysis to determine if low-dose anti snake venom (ASV) is more effective than high- dose anti snake venom in reducing mortality rates in patients with hemotoxic snake bites.

Method: Following PROSPERO registration, an extensive search was conducted from the inception till June 2024 across various databases, namely PubMed, Embase, Scopus, Web of Science, Cochrane Central Register of Controlled Trials (CENTRAL), ClinicalTrials.gov, and WHO International Clinical Trials Registry Platform (ICTRP). A combination of medical subject headings (MeSH) and free text terms were utilized, encompassing phrases such as “hemotoxic snake bite”, “vasculotoxic snake bite”, “coagulopathy in snake bite”, “low dose anti snake venom”, “high dose anti snake venom”. The study included human research in English across all age groups, comparing low-dose versus high-dose ASV in the treatment of hemotoxic snake bites. Risk of bias assessment employed RoB2 tool for RCT and Newcastle-Ottawa Quality Assessment Scale for observational studies.

Results: The review encompassed 3 studies (1RCT, 2 Observational) involving 264 patients in total. Using the random-effects model, patients who received low dose ASV exhibited higher odds of survival (OR, 2.16; 95% CI, 1.04–4.48) compared to patients who received high dose ASV. The NNT for low dose ASV to prevent one death is 14.3. Risk of bias assessment revealed moderate to high risk of bias.

Conclusions: The findings of our systematic review and meta-analysis underscore the efficacy of low- dose ASV in improving survival among patients with coagulopathy due to hemotoxic snake bites. Additionally, the cost-effectiveness of low-dose ASV makes it an attractive option in resource-limited settings like India. Despite a moderate to high risk of bias in the included studies, this systematic review strongly supports adopting low-dose ASV as a standard approach, potentially improving patient outcomes and optimizing resources in treating hemotoxic snake bites.