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189. Latrodectus Envenomations in Pediatric Patients: A Review of the Toxicology Investigators Consortium (ToxIC)

Tony N Rianprakaisang^{1,2}, Edric Wong¹, Stephen L Thornton^{1,2}; On behalf of the Toxicology Investigators Consortium (ToxIC)

¹University of Kansas Medical Center, Kansas City, KS. ²Kansas Poison Control Center, Kansas City, KS.

Background: North America has five medically relevant spider species from the genus *latrodectus*, commonly referred to as widow spiders. Widow spider venom is complex and contains a variety of neurotoxins. Signs and symptoms of envenomation can range from localized pain to severe systemic symptoms including vital sign abnormalities, muscle cramps, vomiting, and in rare cases respiratory distress and myocardial infarction. While an antivenin exists, care is typically supportive and data for pharmacological therapies is limited.

Methods: This is a retrospective review of the Toxicology Investigators Consortium (ToxIC) registry from January 2010-September 2022, and included all patients 18 years of age or younger seen at the bedside by a medical toxicologist and determined to have widow spider envenomation. Statistics are descriptive.

Results: Twenty-eight pediatric envenomations were identified, with a mean age of 8.4 years. Six patients experienced tachycardia (HR >140) and two patients experienced significant hypertension (SBP > 200 mmHg). No other significant vital sign abnormalities were documented. The most common symptoms documented were neurological in origin with agitation (n= 6) being the most common. Two patients experienced paresthesias and one patient had myoclonus. Dermatological manifestations were also documented with five patients experiencing a rash. The most common pharmacologic class used was opioids in 16 patients, followed by benzodiazepines in 11 patients. In total, nine patients received antivenin. There were no deaths in the dataset.

Discussion: Widow spider envenomations are relatively rare events, however symptoms can be severe. In our dataset there were no deaths and only 9/28 patients required antivenin administration. This is consistent with previous literature indicating deaths are rare and that supportive care is the mainstay of treatment.

Conclusion: Pediatric patients envenomated by widow spiders do well with supportive care. While some may require antivenin administration, deaths are uncommon.