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003. Late Hemotoxicity following North American Rattlesnake Envenomation Treated with Crotalidae Immune F(ab')2 (Equine) Antivenom (Anavip®)

Meghan B Spyres[1,2], Gabriel Padilla[3], Richard D Gerkin[1,2], Anne- Michelle Ruha[1,2], On Behalf of the ToxIC Investigators Consortium (ToxIC)

[1]Banner University Medical Center Phoenix, Phoenix, AZ, USA.
[2]University of Arizona College of Medicine Phoenix, Phoenix, AZ, USA.
[3]University of Southern California Keck Medical School, Los Angeles, CA, USA

Background: Late hemotoxicity is common following rattlesnake envenomation treated with Fab antivenom (CroFab®). Clinical trials showed Anavip® to be superior to Crofab® in preventing late hemotoxicity, but this effect has not been demonstrated in broader populations.
Hypothesis: Patients with rattlesnake envenomation treated with Anavip® will have lower incidence of late hemotoxicity than those treat- ed with Crofab®.

Methods: This is a multicenter analysis of prospectively collected data from patients with snakebite reported to the ToxIC NASBR spanning 2019. Inclusion criteria included administration of anti-venom for rattlesnake envenomation. Cases were excluded for incomplete data and if less than one set of follow-up laboratory values was obtained. Data collected included demographics, envenomation characteristics, laboratory values, and treatment ad- ministered. Statistics: t-test and Fisher's exact test. Hemotoxicity was defined as platelets <120 K/mm^3 or fibrinogen < 170 mg/dL; hemotoxicity was considered late on follow-up if values met threshold and were decreased from discharge value.

Results: One hundred thirteen rattlesnake bites receiving antivenom were reported to the NASBR in 2019, 111 were included. Twenty-seven received Anavip® alone, 50 received Crofab® alone, and 34 received both antivenoms. Baseline patient and envenomation characteristics were similar between the groups. For single antivenom cases, Anavip® cases received more vials than Crofab® cases (17 vs. 11; $p < 0.001$), but discrete dosing occurrences were similar (2.6 vs. 2.9 events; $p = 0.11$). Late hemotoxicity occurred in 13 cases in the Crofab® group (35.1%) and in 0 cases in the Anavip® group (0.0%, 95% CI 0.00–0.16; $p = 0.001$); 2 (5.4%) Crofab® cases required readmission and retreatment; no Anavip® cases were readmitted or retreated for hemotoxicity. One case (3.2%) of late hemotoxicity was reported in patients receiving both Anavip® and Crofab®.

Conclusion: Late hemotoxicity was not detected in NASBR Registry patients treated with Anavip® alone after rattlesnake envenomation; Crofab®-associated late hemotoxicity was similar to previous years.