

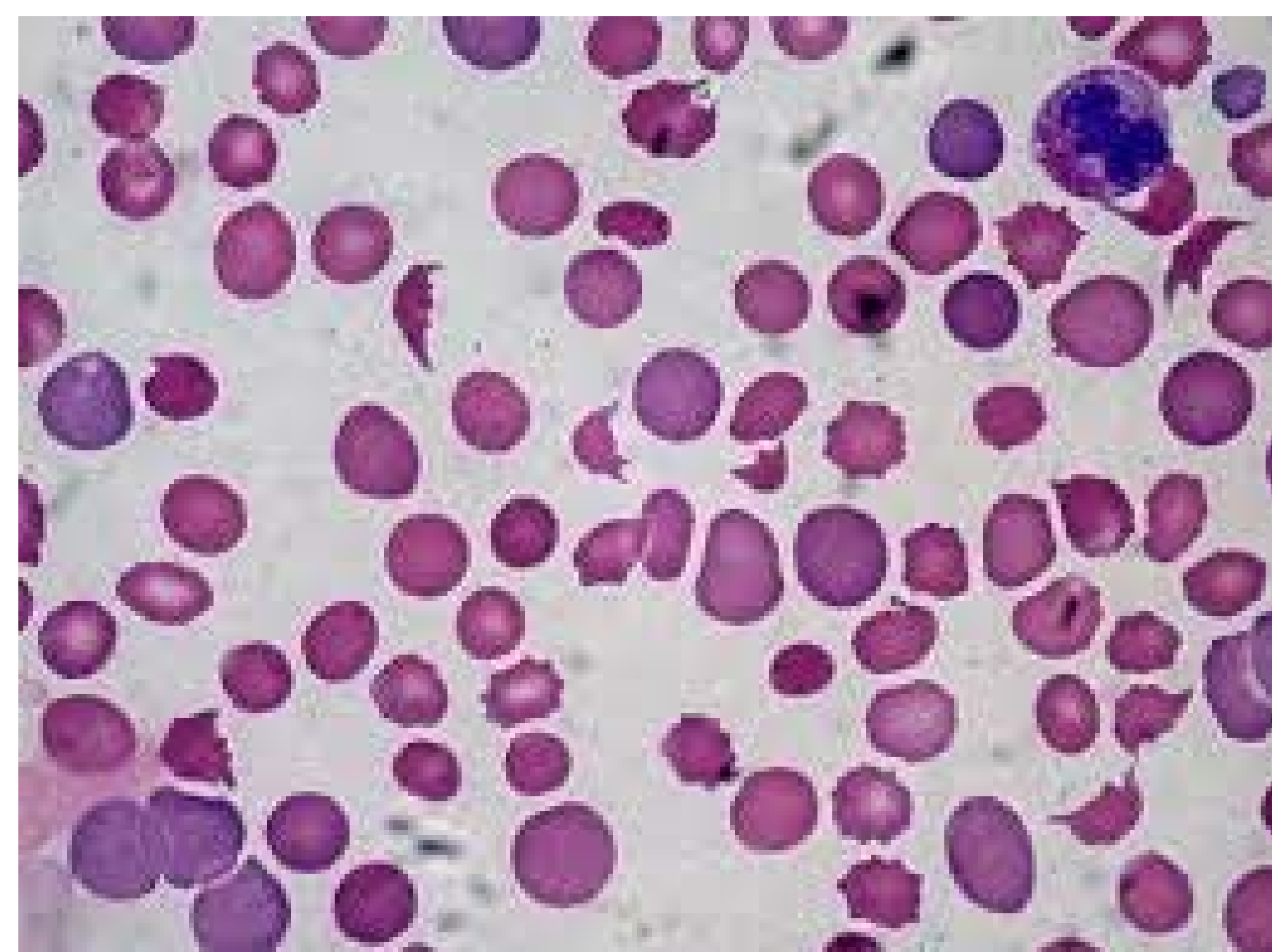
Prevalence and characteristics of hypofibrinogenemia from North American rattlesnake envenomations reported to a statewide poison control center.

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Background

- North American rattlesnake envenomations are known to cause hypofibrinogenemia.
- There is limited medical literature concerning its prevalence and associated characteristics.
- We sought to identify prevalence and characteristic of hypofibrinogenemia after North American rattlesnake envenomations reported to a statewide poison control system.



Methods

- We performed a retrospective review of a statewide poison system's database for all cases of rattlesnake envenomation from January 2000 until December 2009 in which deleterious hematologic effects (thrombocytopenia, hypofibrinogenemia, coagulopathy) were either coded and/or described in free text areas.
- Data collected included:
 - Gender
 - Age
 - Location of bite
 - Platelet count
 - Fibrinogen level
 - INR
 - Antivenom use
- Hypofibrinogenemia was defined as fibrinogen of less than 100 mg/dL
- Thrombocytopenia was defined as platelet count of less than $100 \times 10^3/\mu\text{L}$

Results

- There were 159 cases meeting inclusion criteria.
- Figure 1 shows mean fibrinogen time vs. time.
- 25 (16%) had hypofibrinogenemia at some point during clinical course.
 - 12 (48%) had hypofibrinogenemia present on the initial lab evaluation

Demographics

- Average age was 39 years (range 13-83)
- 23 (92%) were male.
- 17 (71%) were bitten on the hand or upper extremity.
- 25 (100%) received Crotalidae polyvalent immune fab (ovine) antivenom with one patient receiving Crotalidae polyvalent (equine) antivenom.
- An average of 22 vials of antivenom (range 4-58) were given.
- 25 (100%) cases had thrombocytopenia reported during their clinical course.
- 13 (50%) had an INR of greater than 1.5 reported during their care.
- 4 (16%) received cryoprecipitate.

Conclusion

- Hypofibrinogenemia after North America rattlesnake envenomations was infrequently reported in this retrospective review of a statewide poison control system.
- Hypofibrinogenemia was associated with male sex, thrombocytopenia and substantial antivenom administration.

