Figure 2. A, Pieces of the lower jaw removed from the nasal cavity of the victim (original magnification $\times 10$, with a stereomicroscope, photography by the author). B, Jaws of a preserved specimen from the fish collection of Rio de Janeiro State University (photography by H. R. S. Santos).

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In Response to Snakebite Rebound Coagulopathy by Witham et al.

To the Editor:

In the recent report of 2 cases by Witham et al,¹ we question the identification of the snake for patient 2, who was “believed to have been bitten on the foot by a copperhead snake” before being airlifted to Fort Worth, Texas, from an outlying hospital, likely to the west of Fort Worth. Fort Worth lies at the western edge of the natural range for copperheads (*Agkistrodon contortrix*)² but well within the natural range for western diamondback rattlesnakes (*Crotalus atrox*).³ Witham et al provide no further evidence that this was a copperhead and not a rattlesnake.

Significant coagulopathy is primarily characteristic of rattlesnake envenomation^{4–6} and seldom occurs with copperhead envenomation.^{7–9} Lavonas et al⁷ systematically reviewed 19 cohort studies including 1107 patients treated with Fab antivenom (FabAV). None of the 9 patients with late bleeding had identified copperhead bites: 8 cases were after rattlesnake envenomation, and 1 involved an unidentified snake.

Although patient 1 received 15 vials of FabAV, patient 2 reportedly received only 4 vials of FabAV. Antivenom is the preferred treatment for coagulopathy after crotaline snakebite, whereas blood products tend to produce transient improvement in laboratory values.¹⁰ The subsequent response to FabAV in both patients appears to corroborate that. We question whether either patient would have experienced a recurrence of abnormal coagulation profiles if they had received additional antivenom during their first hospital admissions.

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In Reply to Drs Mullins and Ali

To the Editor:

We would like to thank Dr Mullins and Dr Ali for their comments¹ regarding our article “Rebound coagulopathy in patients with snakebite presenting with marked initial coagulopathy.”² I would like to point out that the intent of our article was to report a rare and potentially clinically significant finding in snake bite patients that to our knowledge had not been previously reported.

In regard to Dr Mullins and Dr Ali’s first question about the snake identification in the case of patient 2, I offer the following: As Dr Mullins and Dr Ali noted, we live in an area with both copperheads and rattlesnakes. Historically, we see 4 to 5 copperhead bites per 1 rattlesnake bite, although admittedly the number varies greatly by year. We do our best to identify the snake, and many of our patients are “snake fluent.” I stand by the described history, but I do not in any way deny that coagulopathy is much more common (and severe) with rattlesnake bites.

In regard to Dr Mullins and Dr Ali’s second question as to whether more crofab “could have prevented” the rebound coagulopathy, I have no data to support or deny that assertion. We take a symptomatic and laboratory-driven approach to crofab administration, as I believe most centers do. Although I cannot argue that more crofab might have prevented the rebound, I do not believe we had an indication to give the patient additional crofab.

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