

Do not forget the Lichtenstein's Green Racer!

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Abstract. *Philodryas olfersii* is a non-aggressive, diurnal snake widely found in South America. Most snakebites from this species result in mild symptoms. However, in rare instances, the envenomation can present symptoms resembling those of bothropic snake bites, which are more common in the region. This highlights the importance of considering the potential toxicological impact of *Philodryas olfersii* bites to avoid misdiagnosis and inappropriate treatment with bothropic antivenom.

Key words: *Philodryas olfersii*; *Opisthoglyphous*; *Snakes*; *Myotoxins*; *Fibrinogenolytic proteases*.

To the Editor: *Philodryas olfersii* (Lichtenstein, 1823), also known as 'Lichtenstein's Green Racer,' is a widely distributed species of opisthoglyphous snake found throughout South America. It is characterized by its slender body, elongated head, and smooth, shiny scales. Typically, it exhibits a distinctive coloration, with shades

ranging from olive green to brown, and often has subtle banding or darker markings along its back (Fig. 1). Its interaction with humans is generally accidental or a result of intentional handling, facilitated by its diurnal habits, harmless appearance, and non-aggressive behaviour. Bites, which are most commonly observed on the hands, generally



Figure 1. Appearance of *Philodryas olfersii*. It is primarily arboreal, although it can also be found on the ground, especially during the mating season or in search of food (Credits: DuSantos).

cause minimal local symptoms. However, in rare cases, clinical manifestations resembling bothropic envenoming—an ophidic accident more common in the region—can occur.² For this reason, it is important not to overlook the toxicological significance of envenomation by *Philodryas olfersii*, in order to avoid diagnostic errors and the inappropriate use of bothropic antivenom.

In October 2023, a 26-year-old woman with no relevant medical history consulted at a regional hospital in Argentina after being bitten by a snake on the lateral aspect of her left wrist. The incident took place at midday in a park, while she was holding the snake to take a photograph. Initially, there was no significant injury at the bite site, except for a complete dental imprint. Three hours later, she developed local edema,

erythema, and ecchymosis, which progressed into an extensive hematoma that affected the entire length of the left upper limb, extending to the axillary and pectoral regions (Fig. 2 and 3). The National Poison Center was alerted, and a veterinarian specialized in snakes identified the specimen as *Philodryas olfersii*.

Upon hospital admission, the patient reported pain and functional impairment of the affected limb due to edema. Her vital signs were stable, and laboratory tests ruled out hemolysis, rhabdomyolysis, coagulation disorders, or microhematuria. Doppler ultrasound of the upper limb's arteries and veins showed no abnormal pulse waveforms, and compartment syndrome was excluded. Treatment included anti-edema measures, non-steroidal analgesics, intravenous



Figure 2. Extensive edema, erythema, and ecchymosis after the bite from *Philodryas olfersii*.



Figure 3. Progression of the hematoma that affected the entire length of the left upper limb, extending to the axillary and pectoral regions.

corticosteroids, tetanus prophylaxis, and empirical antibiotics. After 24 hours of observation, the patient was discharged with instructions to return for a clinical follow-up in 7 days. By this time, the hematoma had reduced in size, and the edema had significantly subsided.

In the largest series of bites by *Philodryas olfersii*, only 21.3% of cases required symptomatic treatment, and none developed coagulopathy.³ The venom of this species is known to contain a myotoxin and five fibrinogenolytic proteases, with bioactivity similar to bothropic venom and cross-reactivity with its antivenom.⁴ *In vitro*, these toxins cause hemorrhage and vasogenic edema,⁵ with myonecrosis

described in animal models.⁶ It is noteworthy that bites from *Philodryas olfersii* rarely lead to poisoning in humans. This may be explained by inefficient venom delivery due to its opisthoglyphous condition, the absence of striated muscle in the Duvernay's gland, and its limited mandibular retraction ability. However, when the bite is effective, as in the case described, the clinical picture may closely resemble that of bothropic envenoming.

Conflicts of interest

The authors declare no conflicts of interest.

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