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Case Report

Clinical Management of Accidental Python Bite

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A B S T R A C T

We present here a case report regarding a patient, who sustained a severe hand injury following an accidental python bite. Python-bite injuries are rare and there are no definite guidelines in the literature regarding the management of python-bite injuries. This report details our experience in clinically managing this case, one of the few in the literature. On March 18, 2022, a 20-year male was accidentally bitten by a reticulated python while trying to rescue the snake from the middle of a road. The python was 3.5 meters in length. The bite was on the right knuckle area of the right hand. There was strong bleeding that slowed down after a few minutes. An hour later, the patient could reach the nearby hospital where the wound was thoroughly cleaned with soap and water and antiseptics were given. Broad-spectrum antibiotics were given along with TT and pain killers. Wounds were left open but thorough wound cleaning with betadine was done at the site of teeth marks. Wound cleaning and sterile dressings were applied daily. Despite this, after 3 days there was swelling of the hand as infection had set in. More antiseptics were added IM and topically. After 5 days, there was mild relief in swelling and infection. The patient was fine after a follow-up of 2 weeks with mild swelling.

Keywords: Hand Injury, Python Bite, Bleeding, Swelling, Antiseptics

Background

Python bites are rare in human beings and so are rarely reported to health systems across the globe. The Asiatic reticulated python (*python reticulatus*) is the largest snake species in Asia and Bangkok. The reticulated python is a non-venomous constrictor, with adults averaging 3-6 m in length, but can grow up to 16 ft. They reside in forests and are occasionally found in human habitations. Python bites are rare and mainly seen in those physically handling them as pets or for using them during entertainment shows, or while rescuing pythons from human habitations. This article reports about a patient who sustained a bleeding hand injury following a python bite while rescuing the python,

and provides insights into how we clinically managed such a bite case.

Case Report

On March 18, 2022, a 20-year male was accidentally bitten by a reticulated python (Figure 1) while trying to relocate the snake from the middle of a busy road. The Python was 3.5 meters in length. The bite was on the right knuckle area of the right hand between the index finger and the middle finger. There were deep multiple lacerated wounds with strong bleeding that slowed down after a few minutes (Figure 2). The wound marks were in a semi-circular pattern like a hook (Figures 3 (a) and (b)). An hour later, the patient could reach the nearby hospital where the wound was

thoroughly cleaned with soap and water and betadine solution. Broad-spectrum antibiotics like tab. amoxicillin/clavulanic acid 1 gm, celecoxib 200 mg capsule to relieve acute pain, and paracetamol 500 mg were given along with tetanus toxoid and pain killers. Wounds were thoroughly cleaned at the site of teeth bite and daily dressings were done (Figure 4 (a)). Despite this, after 3 days, there was swelling of the hand and infection had set in. To further control the infection, apart from amoxicillin/clavulanic acid 1 gm twice a day, ceftriaxone 1 gm IM for 4 days was given and clindamycin was added as a topical antibiotic after each wound wash with betadine. After 5 days, there was mild relief in swelling and infection. The patient was fine after a follow-up of 2 weeks. The antibiotic course was taken for 10 days and after rigorous wound dressings, the wound healed itself by the fourth day. After 18 days, the wound got completely healed, but there was restriction in finger movements that hopefully would ease with the passage of time (Figure 4 (b)).



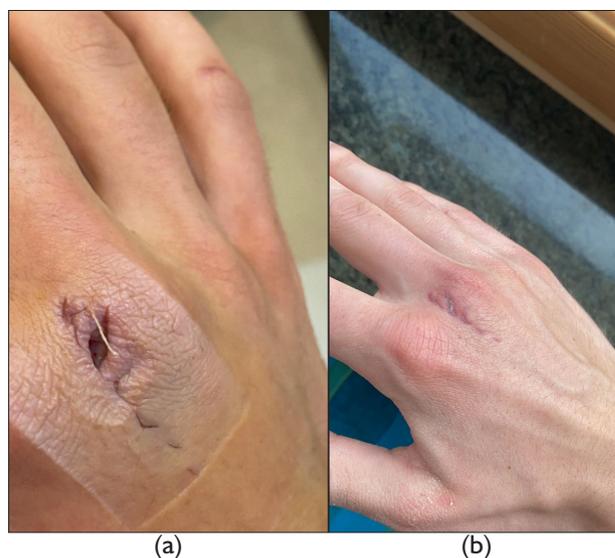
Figure 1. Reticulate python involved in the bite. Pic credit: Jacob Schwarzmann



Figure 2. Bite wounds in a semi-circular pattern on the right hand between the index finger and the middle finger



Figures 3 (a) and (b). Wound marks in a semi-circular pattern like a hook



Figures 4 (a) and (b). Healed wounds on hand on day 7 and day 18

Discussion

Not much literature could be found on management of python bites in human beings, except one paper by Ryan Siqi Yak et al.² The authors in this paper have revealed many mysteries about python bites. In our case, the python itself removed the teeth as soon as it attacked but there was a gush of bleeding that took a few minutes to slow down. Not many studies are available on oral flora of the pythons so that clinicians can choose appropriate suitable antibiotics for their bite injuries. In one of the studies by Jho et al., there were fourteen types of aerobic bacteria isolated from both oral and cloacae samples.³ Ryan Siqi Yak et al.¹ are currently performing bacterial culture and sensitivity from oral swabs of freshly caught wild reticulated pythons, and preliminary results indicate that there are multiple organisms comprising the oral flora with *pseudomonas* and *staphylococcus species* isolated most frequently.

Conclusions and Recommendations

From our study, it can be said that python bites should be considered as contaminated bites, and should be thoroughly cleaned and dressed everyday while keeping them open. Broad-spectrum antibiotics may be required to cover the spectrum of bacteria that may have contaminated the bite site. Broad-spectrum antibiotics may be required for topical dressings as well. The unhealed wounds must be scanned with X-rays to detect any broken teeth inside the wound. To conclude, a broad consensus should be there on clinical management of python bites in human beings as not many studies are there in literature. That also requires more and more documentation of python bite cases and their management to help clinicians take fast decisions across the globe.

Conflict of Interest: None

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