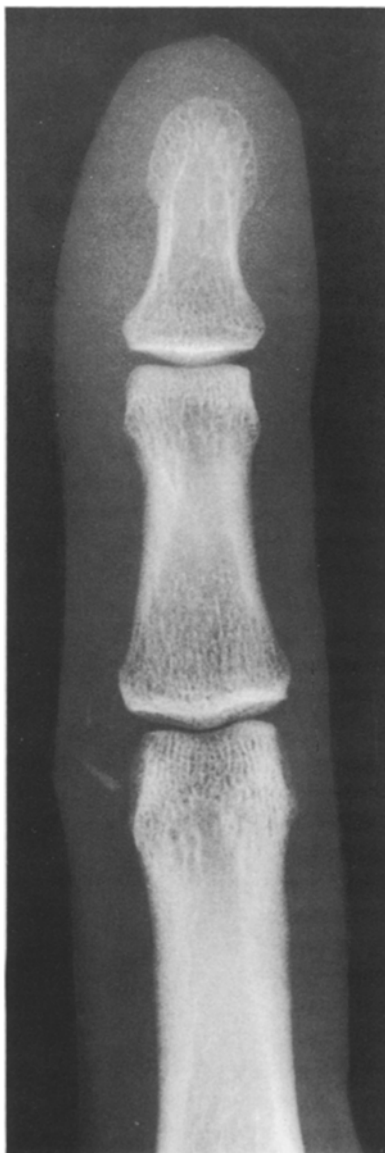


## Case Report 112

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**Fig. 1.** A roentgenogram of the index finger of the right hand shows two distinct linear densities lying in the soft tissues just adjacent to the proximal interphalangeal joint on the radial aspect. Some soft tissue fullness in this area is observed (the opacities on the ulnar side of the finger are artefacts)

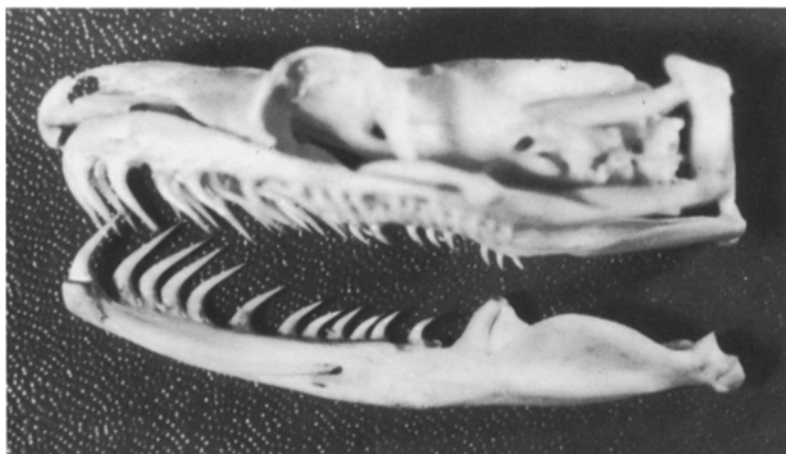
### History

This 22-year-old right-handed office worker consulted a physician for evaluation of a mass around the proximal interphalangeal joint of her dominant index finger. Of note, is the fact that the patient's husband worked as a herpetologist in a local pet store. The development of the mass around the proximal interphalangeal joint dated back to an incident which occurred two years previously (to be described subsequently). Over the ensuing two years a wart-like protuberance occurred at this site. On physical examination a verrucous hyperplasia of the skin with sensitivity radiating down to the tip of the index finger on the radial border was noted.

The radiological studies of the index finger demonstrated several curvilinear opacities in an area of soft tissue fullness on the radial side adjacent to the proximal interphalangeal joint of this finger.

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**Fig. 2.** The arrangement of the teeth in the *Boa constrictor*'s jaw is demonstrated in this photograph. The similarity of the tips of the teeth and the opacities observed in Figure 1 is apparent

### Diagnosis: Boa Constrictor Tooth in Soft Tissues of Index Finger

The differential diagnosis must include necessarily any type of foreign body in the soft tissues, calcification in the joint capsule, calcific tendinitis, a collagen disorder (e.g. dermatomyositis, scleroderma), secondary hyperparathyroidism and any other cause of calcification in soft tissues.

### Discussion

In connection with the patient's husband's occupation (herpetologist) in a pet store, the patient and her husband had kept several snakes in their home as personal pets. One was a *Boa constrictor* which was said to have adapted very poorly to human companions. In fact, two years previously (the beginning of the relevant history) the patient had been bitten in the area of the proximal interphalangeal joint of the index finger without provocation by the *Boa constrictor*, while it attempted to constrict around the woman's forearm. It was necessary for the patient's husband to forcefully break the constriction of the snake in order to free her arm. She had no difficulty with the wound immediately thereafter and it healed per primum. Over the ensuing two years a wart-like protuberance occurred at the site of the bite.

The authors know of no previously documented case of the residua of the bite of a boa constrictor in the radiological literature.

The characteristics of various foreign bodies in the hand and the means to detect and localize them have been well described. The teeth of the *Boa constrictor* are arranged in progressive rows from the angle of the mandible distally, reaching increasing size toward the distal opening of the mouth. The teeth are sharply pointed on their free surface and inclined toward the intestinal tract (Fig. 2). The func-

tion of the teeth is to prevent the prey of the *Boa constrictor* from escaping. The teeth are apparently deciduous. Once engaged in the soft tissues the tips of the teeth may be broken off (as observed in the present case), when strong resistance to the snake's attack was offered.

The radiological appearance of the tooth remnants in this present case suggests that they were unaltered after two years. No information is available to the authors concerning the effects of tissue fluids on the fragments of such teeth, nor could any data be elicited about the length of time necessary for such fragments to be resorbed.

The case is of interest since it documents the after effects of what must be an extremely rare occurrence – the bite of a *Boa constrictor*. The radiologically demonstrated residual fragments of the tooth of the *Boa constrictor* in the soft tissues of the bitten index finger coincide graphically with the actual appearance of any of the representative teeth in the mouth of the *Boa constrictor*.

### References

1. Louis, D.: Non-skeletal trauma to the hand. In: Poznanski, A. (Ed.). *The hand in radiologic diagnosis*, p. 477. Philadelphia: W.B. Saunders 1974