

# Non-trauma community hospital management of head and neck wound from alligator bite

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## Abstract

Alligator attacks are uncommon and attacks that result in traumatic neck injuries are even rarer. Traumatic penetrating neck wounds have a subjective treatment strategy based on the clinical picture of the patient and comfort level of the physician, but there is no specific algorithm. Traumatic injuries are typically treated by hospitals with a trauma center; however, in the following case, a penetrating neck injury caused by an alligator was treated at a local community hospital without a trauma center.

## Introduction

Most reported alligator attacks in the state of Florida are not fatal, and result in puncture wounds and lacerations of the extremities. Head and neck traumas from alligators are exceedingly rare. As of 2009, only nine cases of neck injuries and 35 combined head and face injuries related to alligator attacks have been reported. To our knowledge, an alligator attack resulting in a penetrating neck wound treated by a non-trauma community hospital with a primary closure has not been reported.

## Case

A 51 year old male was attacked by a 7 foot alligator while wading in a local spring. The gator clamped its jaws around the top of the patient's head and no evidence of submersion during the attack was noted.

### Physical exam findings

1. 8 cm laceration over the left temporal parotid/periorbital region
2. 11 cm laceration on left neck
3. puncture wound on zone 2 of the left neck
4. puncture wound on the right posterior parietal scalp without evidence of skull fracture
5. mild laceration without neurological deficit on the left thumb

### Maxillofacial CT with contrast findings

1. acute non-displaced fractures of the left zygomatic arch without other abnormalities

A CT angiography showed no evidence of injury to the internal carotids or vertebral arteries

### Surgical exploration findings

1. no penetration to the carotid sheath
2. no active bleeding
3. zone 2 neck wound with no penetration into the platysma

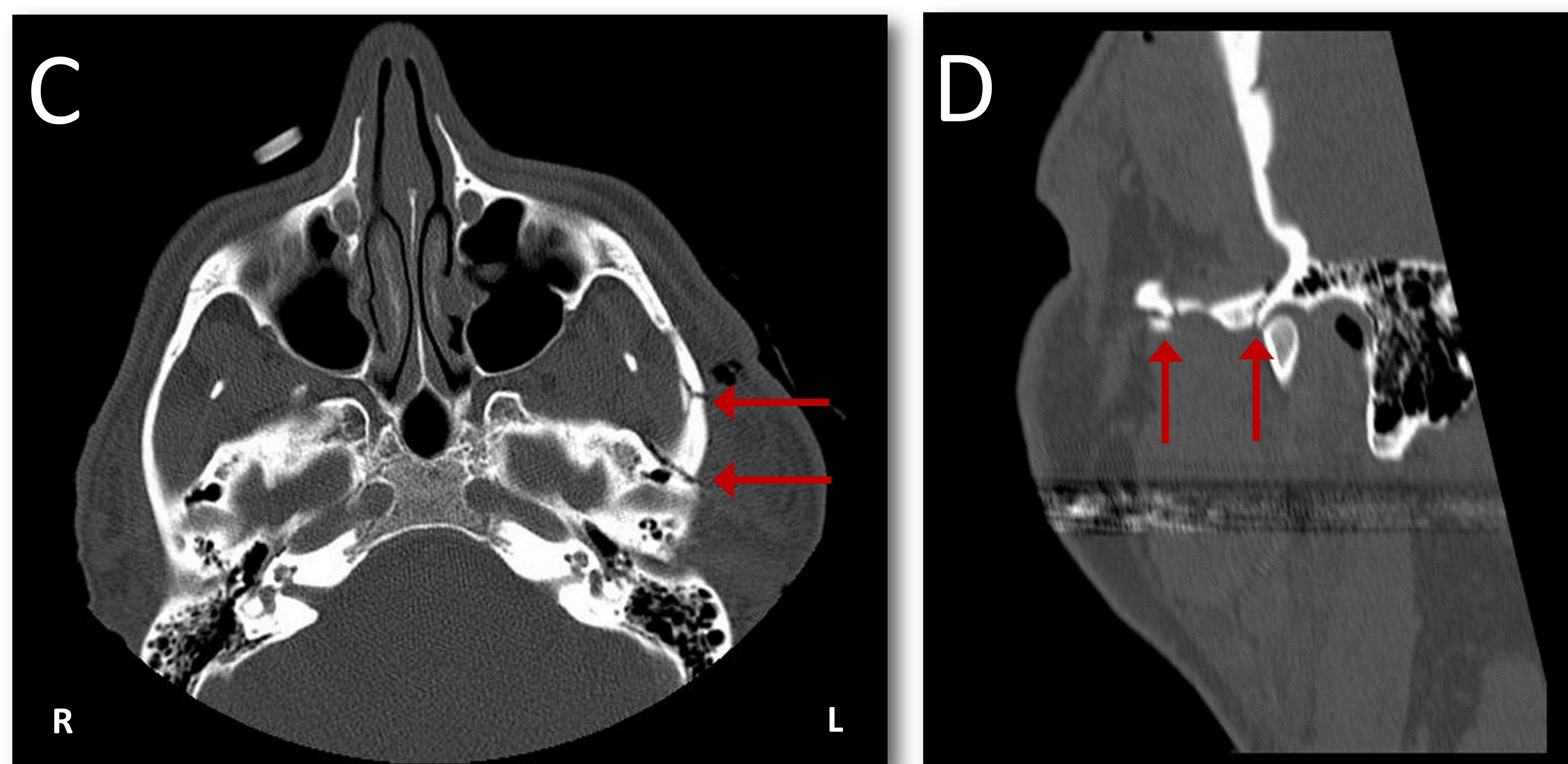
The wounds were irrigated and closed primarily with placement of a 7mm Jackson-Pratt drain. Zosyn was given immediately after surgery.

Over the course of the patient's stay, only 48 mL of serosanguineous fluid was collected from the drain. Patient was discharged 36 hours post admission on Augmentin with drain care instructions for home. At the two week follow-up visit, the drain was pulled and the patient had good healing of wounds without signs of infection.



**Figure 1: Traumatic injuries from alligator attack.**

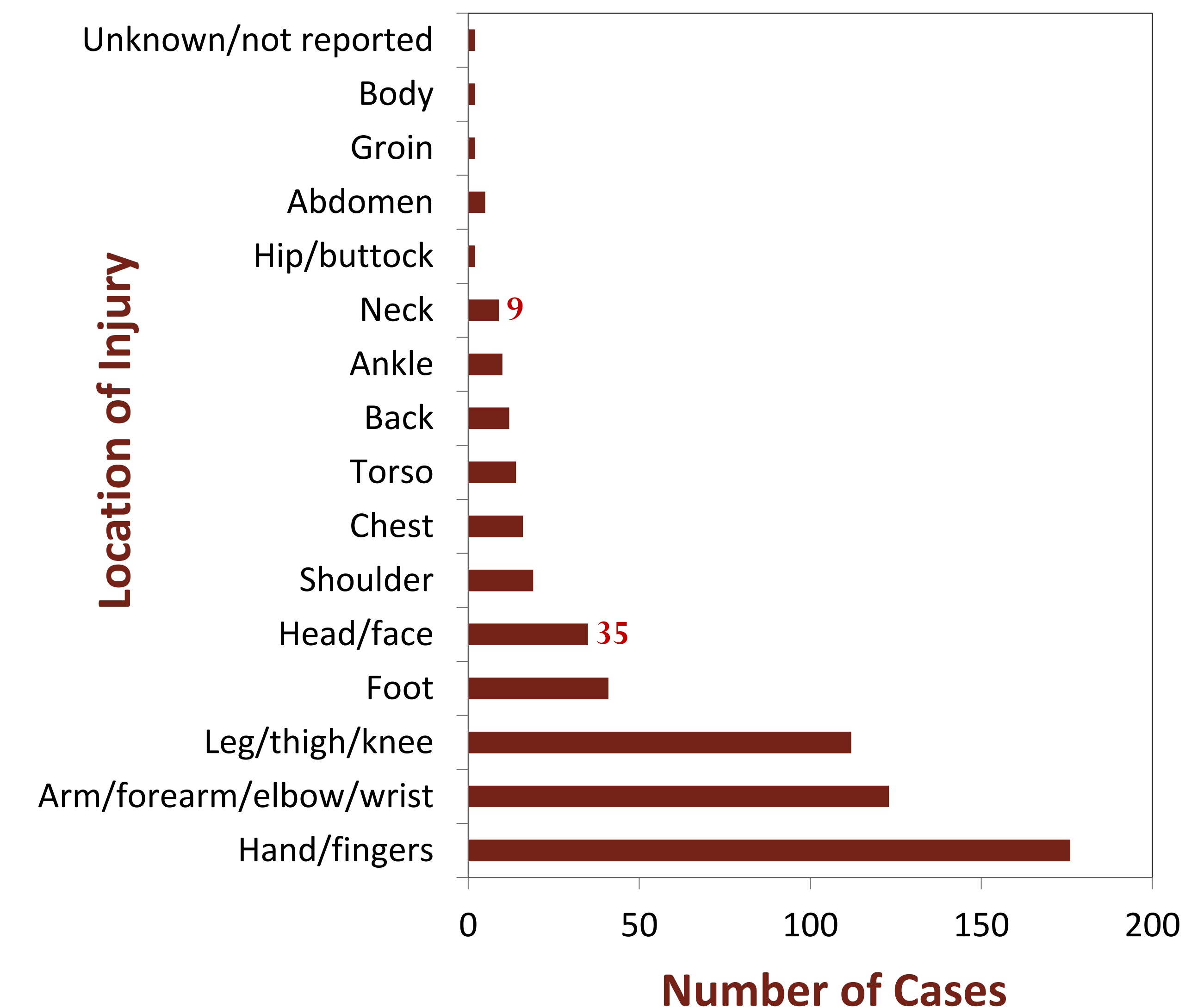
- A:** 8 cm laceration with jagged edges over the left temporal parotid/periorbital region penetrating fascia. 11 cm laceration on the left neck, overlying the sternocleidomastoid area, in zone 2, with a puncture wound superiorly that punctured platysma; multiple 1 to 2 cm lacerations over the left face
- B:** Progress of healing on post-operative day 13 showing no signs of infection or dehiscence.



**Figure 2: Non-contrast CT of head obtained on admission showing multiple non-displaced left zygomatic bone fractures.**

- C:** Multiple left zygomatic bone fractures transverse view.
- D:** Multiple non-displaced fractures of left zygomatic bone sagittal view.

## Part of body injured by alligator bite



## Conclusions

This case illustrated a rare and unique injury that was treated by a hospital not necessarily equipped to handle a trauma of this nature. Despite this, the patient had a good prognosis and outcome. Since treatment for stable patients with a traumatic neck injury falls into a grey zone, it may be necessary to establish a more definitive algorithm for management. Thus, further study and documentation of similar events are required to ensure proper treatment protocols and satisfactory patient outcome.

## References

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