SNAKE BITE OVER AN UNUSUAL SITE – A CASE REPORT

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Abstract

Snake bites are not uncommon in India especially in rural areas. The usual sites of bite are the lower and upper limbs. This is a case of snake bite over an unusual site i.e. ear lobe of a male. The patient was admitted to ICU within four hours of the bite as he was having signs of neurotoxicity. He recovered and was discharged after 14 days. Proper prophylactic measures could prevent such domestic accidents. Medical personnel particularly working in rural areas should be aware of snake bites overother parts of the body other than the extremities.

Key words: Unusual site , Lacerated puncture , Scratches, Krait, Ear lobule.

Introduction

At least 421,000 envenomings and 20,000 deaths from snakebites occur each year, especially in South and South East Asia and sub-Saharan Africa[1].India has the highest estimated annual envenomings and deaths: 81,000, and 11,000 respectively[1].Approximately 330 species of snakes exist in India, of which about 70 species are venomous (40 land snakes and 30 sea snakes)[2].The commonest Indian venomous snakes are common Krait (Bungaruscaeruleus) ,common cobra (Najanaja) , saw scaled viper (Echiscarinatus) and Russell's viper (Viperarusselli)[2].The usual sites of snake bites are seen over the lower extremities and upper extremities. In one of his own experience of 27 yearsProfB.D. Gupta had reported almost all cases of snake bites were seen over the limbs except a rare case of bite on the back of scalp[3].In a study of 225 cases of snake bites 223 bites were on the limbs[4].Snake bite marks are usually in the form of two lacerated punctures[5]. Snake teeth are both acrodont (attached to the bone) and polyphydont (able to grow back when lost), and a snake may have several sets of teeth throughout its lifetime[6]. This is necessary, because teeth are often lost while feeding. The type of teeth a snake has differs depending on the method used to capture and kill prey. There are three kinds of snake dentition: **Constrictor dentition:** Most snakes have two rows of teeth on each upper jaw and one row on each lower jaw. All of the teeth are short and hook-like. All non-poisonous snakes have constrictor dentition, regardless of whether or not they actually constrict their prey. Poisonous snakes have either grooved fangs or hollow fangs. **Groove fanged:** Fanged snakes have only one row of teeth on each upper jaw, plus a pair of fangs. The fang has a groove that serves as a path for the venom to flow into the prey from the venom glands located on the top of the head. **Hollow fangs:** The teeth of the hollow-fanged snakes serve the same purpose as grooved fangs, but the fangs are more like a hypodermic needle through which the venom flows. These fangs can be either erectile or fixed. The erectile teeth are retracted into a groove on the roof of the

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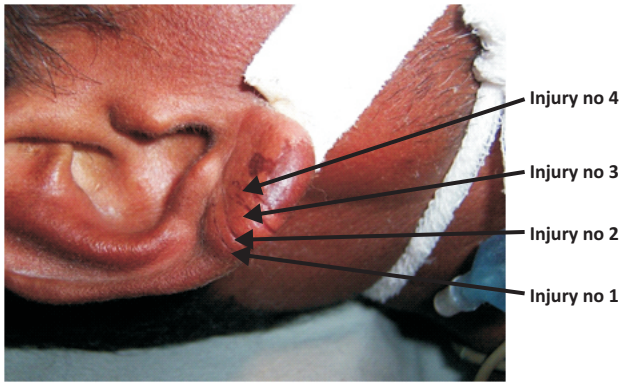
mouth and extend when the mouth opens to strike, but fixed fangs are always extended[6]. Poisonous snakes have only two fangs on the upper jaw. But in case of common krait there are four small teeth behind the fangs in the back part of side of upper jaw[7]. The case reported here is an unusual and rare case of snake bite in form of scratch over the ear lobe.

Case report

A 35 years old male while sleeping on floor , felt severe pain in his ear and woke up at around 1am in the night.A live snake was seen to be escaping away at the door step. The patient was immediately shifted to the local hospital where he received 4 vials of poly valent Anti snake & intubated. He was then shifted to a teaching hospital attached to Mamata Medical College. The patient was examined by the author in the emergency department four hours after the incidenceand thefollowing were observed.



Snake bite mark over right ear lobule. (Injury no 1, 2 , 3 and 4)

Two points of punctured wounds on posterior aspect of right ear lobule-(Injury no 5)

1) A Scratch abrasion 2cm long, transversely placed on anterior aspect of right ear lobule.

2) A Scratch abrasion 2.5 cm long, transversely placed on anterior aspect of right ear lobule 0.25cm below and parallel to injury no 1.

3) A Scratch abrasion 1.5cm long, transversely placed on anterior aspect of right ear lobule 0.5cm below injury no 2

4)A Scratch abrasion 1.5 cm long, transversely placed on anterior aspect of right ear lobule 0.25 cm below the injury no 3.An area of 1cmx2cm epidermal necrosis was noted extending down.

5) On posterior aspect of the lobe –two puncture wounds were seen 0.5cm apart from each other with dry scab on each. Epidermal necrosis over roughly 1.5cmx1cm irregular area was seen mostly below and on medial aspect of the punctures.

The patient was unconscious and was shifted to the Intensive care Unit. At the time of discharge the following case summary was noted by the author.

Summary of treatment

As ASV was already administered no further ASV was added to the treatment schedule. In the next 24 hours he regained sensorium and responded to verbal command. However because of poor respiratory effect due to muscular paralysis he was continued to be on ventilator for 9 days after which he could maintain spontaneous respiration. All other clinical parameters were within normal limits.He was discharged on 14th day after being fully cured. Final diagnosis was Krait bite.

Discussion

The above case is a rare one in relation to the site of the bite. The following questions were automatically raised by seeing the wound.

Was it a snake bite or any other bite? History of seeing the snake going out, clinical features of toxicity and presence of bite marks were suggesting that it was a snake bite.

If it was a snakebite then which snake? Clinical features of respiratory paralysis, nerve paresis and unconsciousness suggested that poisonous snake having neurotoxic venom was responsible for the bite.

If it was a poisonous snake then whether the maxillary teeth contacted anteriorly or posteriorly?

In this case the bite mark was not a usual type of two lacerated puncture wounds. Rather there were four scratches with less distinct puncture marks over the middle two scratches.As the puncture wounds were more conspicuous on the posterior aspectitmay be possible that the maxillary teeth contacted the posterior aspect. The scratches seen on anterior aspect were due to the teeth of lower jaw. This can be possible in the following way.

The victim was probably either in prone or lateral position changed to supine position, thus provoking the snake which was present nearby. The snake bit the ear lobe in the supine position of the victim so that the maxillary teeth or the fangs contacted back of the lobule. This type of nocturnal bite is seen with Kraits. The other possibilities could be that (1) there were two attempts by the snake, to hold the mobile soft lobule (2) The maxillary teeth contacted the anterior aspect and the central fangs pierced to be seen on back (as the distance is same between those -0.5cm) and the scratches seen on both side of the fang marks are due to other maxillary teeth which is a feature in case of Kraits[7]. Thus the reconstruction remains open to all the three above possible ways.

Conclusion

It is also possible to see scratches rather than puncture marks in snake bites. Snake bites can also be possible on any part of the body depending upon the state and position of the victim rather than only on the limbs. All physicians treating cases of snake bite should keep an open mind as far as the bite site is concerned.

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