Severe anaphylaxis following ant bites

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Introduction

Ant bites causing severe anaphylaxis has not been reported in Sri Lanka before. Ant bite is an environmental hazard in south-eastern part of America [1]. In Asia and Australia similar cases have been reported recently [2].

Case Reports

Case 1

A 30-year old female developed itchy rash, fever, faintishness and vertigo one hour after being bitten by about 25 ants. She was allergic to beef. On examination her pulse rate was 110/minute, blood pressure was 70/50 mm Hg and there were bilateral rhonchi on auscultation. We ensured her airway and oxygen was given via face mask. Adrenaline 0.5 ml, chlopheniramine 10 mg and hydrocortisone 200 mg were given intravenously. She was nebulised with salbutamol. An infusion of 0.9% saline was administered. She recovered after treatment and went home three days later.

Case 2

A 27-year old female developed faintishness, wheezing, pruritus and facial swelling after being bitten by black ants (number not known). There was no history of allergy. On examination she was pulseless and her blood pressure was unrecordable. She was resuscitated similar to the first patient but required ventilatory support and vasopressor infusions. Four days later she was weaned off from the ventilator and went home on the eighth day.

Case 3

A 30-year old female was transferred from Base Hospital, Dambulla after developing anaphylactic shock following black ant bite. She had developed an itchy rash, generalised body swelling and shortness of breath ½ to 1 hour after an ant bite while she was asleep. After initial treatment she was transferred to Teaching Hospital, Kurunegala.

On admission her Glasgow coma score was 3/15, blood pressure was 100/60 mm Hg and O₂ saturation was 90%. As her breathing was poor she was intubated and ventilated. She was given adrenaline, chlopheniramine, hydrocortisone, 0.9% saline, and dopamine. Despite the supportive treatment her condition deteriorated and she died 18 hours after admission.

Isolation and identification of ant species were done in cases two and three as *Tetraponera rufonigra* (Figure 1) and *Odontomachus simillimus* (Figure 2) respectively.

Discussion

*Odontomachus simillimus* (‘*DalaKadiya*’) which caused fatal anaphylaxis is considered to be a high threat species belonging to subfamily Ponerinae, common in the

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wet zone of Sri Lanka. The second patient was bitten by *Tetraponera rufonigra* ("Hathpolaya") belonging to the subfamily of Pseudomyrmecinae. Ant venom consists of proteins, enzymes, formic acid and other chemicals. Venom differs from species to species. Skin test using ant extract, specific IgE assays and immunotherapy with whole body extract of the ant are available in some countries. Venom extraction from local species may help in the management of similar patients in the future.

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**References**


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**Isolated congenital foramen transversarium abnormality causing occipital headache**

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**Introduction**

Occipital neuralgia is usually unilateral and has a characteristic shock like pain lasting for a short duration indicative of neural origin [1]. The pain is confined to the dermatome of the nerve root at the lower occipital region of scalp and upper neck. The C3 nerve root compression can occur at the spinal canal lateral recess, neural foramina and lateral to the foramina. Compression of the nerve root by an abnormal course of vertebral artery has been reported in the literature. Bony abnormalities at the craniovertebral junction can cause occipital headache due to abnormal course of vertebral artery and joint instability [2,3]. Foramen transversarium defect of upper cervical vertebrae though not included in the cervicovertebral junction anomaly, when anomalous can cause occipital headache as in this case.

**Case report**

A 34-year old man presented with sudden onset of lancinating pain in the left occipital region and upper neck on and off. The pain occurred in left lateral decubitus position and was a momentary pain below the external occipital protuberance. His initial computed tomography (CT) of the brain was normal. His vision and hearing were normal. He was initially diagnosed as having migraine and was on medication for one year. The pain recurred on and off with or without medication. MRI of the cervical spine revealed a medially placed dominant left vertebral artery causing compression of the C3 nerve root (Figure 1). The left pedicle of C2 vertebra was small. No other craniovertebral anomaly was detected. Flexion and extension MRI excluded atlantoaxial dislocation. MRI brain and MR angiogram were normal. A CT revealed an abnormally wide foramen transversarium of C2 and C1 vertebrae (Figures 2 and 3). The C1 and C2 foramen transversarium had hypoplastic anterior costal bars. Contrast examination revealed medially displaced left vertebral artery within the C2 vertebral foramen. A large lateral loop of vertebral artery was also noted between the C2 and C1 vertebrae. Surgical decompression of the nerve root with repositioning of vertebral artery would have been ideal but the patient opted for non surgical management. Hence, postural advice was given. On follow up, the patient had momentary pain at the left occipital region while lying in the left lateral position which disappeared on changing the position. As surgery was not performed, a causal relationship of the displaced vertebral artery and the headache could not be established with certainty. However, as the symptoms were relieved with postural change, it was reasonable to assume that the displaced artery causing irritation of the cervical nerve root was the reason for the headache.

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