

Brachial plexitis following bee sting

Sir,

We read with interest the articles describing rare neurological presentation of honey bee sting.^[1,2] In this context, we report a rare case of brachial plexitis following bee sting.

A 44 year- old man was admitted with two weeks history of weakness and numbness of right upper limb following honeybee sting on his right hand and forearms 8 hours prior to the onset of symptoms. The weakness was predominantly distal. Numbness is present on dorsal and palmar aspect of hand, medial aspect of forearm and medial aspect of lower half of right arm. No history of any symptoms of cranial nerve, weakness of other limbs or bowel and bladder were present. He was not diabetic. On examination, the patient was found to have healing multiple bee sting marks on the dorsum of his hand and forearm with mild edema. Mild wasting was noticed on right biceps, triceps, flexor carpi ulnaris, thenar and hypothenar muscles. Power was normal in shoulder muscles with mild weakness of elbow flexion and extension. Grip was less than 50% with weakness of all hand muscles. Deep tendon reflexes on right biceps, supinator and triceps were sluggish. Other deep tendon reflexes and superficial reflexes were normal. Sensory examination showed touch, pain, temperature was reduced on the symptomatic area. All other systemic examinations were normal. Blood investigations showed normal hemogram and blood sugar. Nerve conduction studies were consistent with brachial plexus lesion located at the root level of C6, C7, C8, and T1 on the right. MRI of cervical spine and brachial plexus were normal. He was given Dexamethazone 12 mg/day for 5 days followed by tapering dose of oral prednisolone for 2 weeks. His neurological deficit had resolved over next one month with minimal residual weakness.

Bee stings are commonly encountered but its neurological complications are uncommon. reported incidence of early brachial plexitis following bee sting are few. Honeybee (*Apis mellifera*) venom is composed of proteins like hyaluronidase, phospholipase, peptides like melittin, scapin, apamin, procamine, and active amines like histamine and

dopamine.^[3,4] Apamin is a potent neurotoxin known to inhibit calcium dependent potassium channel in brain and spinal code. It also induces motor hyper activity. The mechanism of brachial plexitis is probably due to peripheral action on the nerve roots resulting from allergic reaction to the bee venom. Allergic reactions occur by type 1 hypersensitivity reaction mediated by IgE with release of chemical mediators of inflammation.^[5]

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