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Case Report

Facial nerve palsy following bee sting: a case report

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ABSTRACT

One of the most common insect poisoning is bee sting. It can produce local symptoms such as pain, redness, and fever following a local pain. Rarely, anaphylaxis, myocardial infarction, organ failure, epilepsy and other neurological diseases have been reported. Lower motor neuron facial nerve palsy is one of the common diseases of the Otorhinolaryngology clinic. Although it is usually idiopathic, trauma and tumors are the two most common causes. Usually, it is diagnosed clinically and the grade of palsy is based on House Brackmann Classification. We present a case of left Bell's palsy due to bee sting. A 21-year-old male patient was referred to our clinic for persistent incomplete eye closure for two weeks duration. Upon further history, he complained that prior to the left sided facial weakness he was stung by a bee the night before on his left toe and developed the facial weakness when he woke up in the morning. He did not get immediate treatment. Clinically he had Grade III left lower motor neuron facial nerve palsy. Other ear, nose and throat examinations were unremarkable. He was treated with oral steroid and eye care. One week upon follow up, his facial weakness was completely resolved.

Keywords: Bee sting, Facial nerve palsy, Bells palsy, Oral steroid, House Brackmann classification

INTRODUCTION

One of the most common insect poisoning is bee sting. It can produce local symptoms such as pain, redness, and fever following a local pain. Rarely, anaphylaxis, myocardial infarction, organ failure, epilepsy and other neurological diseases have been reported.[1]

Lower motor neuron facial nerve palsy is one of the common diseases of the Otorhinolaryngology clinic. Although it is usually idiopathic, trauma and tumors are the two most common causes. Usually, it is diagnosed clinically and the grade of palsy is based on House Brackmann classification.[2] We present a case of left facial nerve palsy due to bee sting.

CASE REPORT

A 21-year-old male patient was referred to our clinic for persistent incomplete eye closure for two weeks duration. Upon further history he complained that prior to the left sided facial weakness he was stung by a bee the night before on his left toe and developed the facial weakness when he woke up in the morning. He did not get immediate treatment.

Clinically he had left lower motor neuron facial nerve palsy Grade III-IV according to House Brackmann Classification. Other ear, nose and throat examination was unremarkable. He was treated with oral steroid and eye care. One week upon follow up his facial weakness completely resolved.

Figure 1: Left lower motor neuron facial nerve palsy with incomplete eye closure.

DISCUSSION

Peripheral facial paralysis is divided into primary and secondary paralysis. Primary case such as Bell's Palsy. Secondary causes are traumas, tumors, ischemic causes, diabetes and immunological disorders. Physical examination, MRI IAM, electrophysiological tests, blood tests, cerebrospinal fluid examinations are used in the diagnosis of peripheral facial paralysis.[3] Various scoring system are available to clinically assess the severity of peripheral facial nerve palsy. The most widely applied is the House Brackmann facial nerve grading system.[2] In the treatment of secondary facial paralysis, the underlying cause is addressed. In primary facial paralysis, steroids, antivirals, Botulinum toxin are used.[1] 85-95% of the facial paralysis is reversible. 20-30% of those who do not receive treatment will return spontaneously. Full return time is 3 months at the latest. Those with advanced age, patients with complete paralysis, no return in more than 3 weeks, Ramsay-Hunt Syndrome, patients with severe pain, secondary facial paralysis in the prognosis is poor.[1] Bee stings are the most common insect bites. Local and systemic complaints related to the type 1 immune reaction can be seen. The majority of Hymenoptera stings are self-limiting events and resolve in minutes to hours without treatment.[4] In the literature, cases such as Gullian Barre-like polmyelitis, optic neuritis, corneal injury, vasculitis, cerebral infarction, nephrotic syndrome, acute renal failure have been reported due to late reactions.[5-10] Facial paralysis due to bee sting has been previously reported but the the bee sting was at the mastoid region.[1] This case highlighted even at a distance from the head and neck region, late reaction can still occur. The mechanism of peripheral nervous system damage is not clearly known.[11] Only one case has been reported due to tick bite. [1] In uncomplicated cases (stings) conservative therapy, (antihistamines, ice or cool compresses, topical lidocaine, or corticosteroid lotions) was used.[2] In some studies early treatment with corticosteroids in optic neuritis caused by bee sting was effective.[7]

CONCLUSION

Facial nerve paralysis is a rare complication after bee sting and its even unusual as the bee sting was at a distance from head and neck region. The patient was treated with oral steroid and made an uneventful recovery. In uncomplicated cases conservative therapy has been effective.

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