PARKINSONISM FOLLOWING A HONEYBEE STING

A 41-year-old female presented with bradykinesia, and monotonous speech, 3 days following honeybee sting. Earlier, she had developed shortness of breath, most probably bronchial edema, and generalized swelling following the sting, which was relieved within 3-4 hours, by single shot of chlorpheniramine maleate and dexamethasone. There was no history of altered sensorium, diplopia, dysphagia, nasal regurgitation, deviation of face, sensory or motor loss, and bowel/bladder disturbance. Patient had history of anaphylaxis to bee sting 10 years back. Examination showed masked facies, decreased eye blinking, generalized rigidity, short shuffling gait with reduced arm swing, rest tremors, bradykinesia and soft speech. Rest of the examination was unremarkable. Laboratory investigations revealed normal hemogram, renal and liver function tests. Magnetic resonance imaging (MRI) of the brain revealed diffuse hyper intensities on T2 weighted and FLAIR images in the bilateral caudate and lentiform nuclei (Figure 1) and diffuse effacement of the sulci of the right frontal lobe. Patient was started on carbidopa and levodopa and showed symptomatic improvement within four weeks. By the end of 3 months her extrapyramidal symptoms had improved.

Hymenoptera stings are mostly benign. However, they may cause up to 100 deaths per year in United States of America. Neurological complications after hymenoptera stings commonly include demyelinating syndromes, encephalopathy, and cerebral infarction. Basal ganglia involvement is rare. Till date seven cases of basal ganglia dysfunction following hymenoptera stings have been documented. These cases presented with coma, seizures, myoclonus, rigidity, chorea, akinetic mutism and Parkinsonism. Castaigne et al described on autopsy, necrosis of putamen, caudate nucleus, thalamus and red nucleus along with cortico striatal necroses following wasp sting.

Leopold et al have described a case of Parkinsonism following wasp sting in a 49-year-old male. After nine months this patient developed severe gait abnormality. Blood and cerebrospinal fluid immunofluorescent studies showed antibodies against the basal ganglia.
suggesting an autoimmune phenomenon. He improved on plasmapheresis, intravenous immunoglobulin and azathioprine.

Factors implicated in basal ganglia dysfunction are; ischemia, toxins and allergy.[1-4] The ischemic-hypoxic pattern seems unlikely in our case, as there was no evidence of hemodynamic failure and Ammons horn, purkinje fibers and dentate gyrus (susceptible to ischemia) were intact on imaging. Bee sting envenomation occurs with multiple stings, usually more than 10. Single honeybee sting in the present case was against venom mediated toxicity.

Hypersensitivity reaction following hymenoptera sting have been described,[1] and in our case may be explained by the presence of swelling and neuronal central findings, which could have been a consequence of a probable central angioedema or allergic encephalomyelitis.[5] Parkinsonism in our case represents an unusual hypersensitivity reaction to honeybee sting.

REFERENCES


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PSEUDO MEIGS’ SYNDROME WITH BENIGN STROMAL HYPERPLASIA AND ELEVATED CA-125

Sir,

We present a rare case of Pseudo Meigs Syndrome associated with benign stromal hyperplasia of ovaries and markedly elevated serum CA-125 levels.

A 47 year old perimenopausal lady was admitted in our gynaecology ward with chief complaints of distension abdomen, progressive dyspnœa and pedal oedema for 10 days. There was no other relevant history.