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Letter to the Editor

Guillain-Barré syndrome following bee sting

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Guillain-Barré syndrome is an acute demyelinating disease of peripheral nerves characterized clinically by progressive weakness [1]. Herein, we report on a child with Guillain-Barré syndrome, which developed following bee sting because of very rare presentation.

A previously healthy 4-year-old girl was admitted with unable to walk. Firstly, the symptoms of viral upper respiratory tract infection were initiated 10 days before admission to our hospital. Three days after initiating of the symptoms of infection a bee stung her left heel region. Weakness on the lower extremities, particularly on the left lower extremity was initiated 2 days after bee sting and then progressed to upper extremities, bilaterally within 3 days. The personal and family history was unremarkable. On physical examination her vital signs and body measurements were normal. Her general condition was good. Muscle strength was 3/5 and 1/5 on the upper and lower extremities, respectively. Deep tendon reflexes were diminished on the upper extremities and absent on the lower extremities. Fundoscopic examination and eye movements were normal. Plantar response was flexor, bilaterally. Additionally, an evaluation showed no evidence of sexual abuse in the patient. On laboratory investigation, urinary analysis, complete blood count, serum electrolytes, renal and liver function tests were normal. Viral markers including hepatitis, and Epstein-Barr virus were unremarkable, but serum immunoglobulin M against Herpes simplex virus type 2 was found to be positive. Cerebrospinal fluid examination revealed protein was 112 mg/dL, glucose 50 mg/dL (simultaneous blood glucose level was 89 mg/dL), chloride 123 mg/dL no cell was noted on microscopic examination. Electromyography demonstrated marked slowing of motor conduction velocities on the upper extremities. No motor or sensory response was available on nervous peronealis, tibialis and suralis. Additionally, no F-wave response was noted on median nerve. These findings were consistent with Guillain-Barré syndrome. The patient was hospitalized. On the 3rd day of admission, intravenous immunoglobulin (400 mg/kg/day for 5 days) was given because her paralysis markedly progressed and tetraplegia was noted. She was discharged from hospital on the 8th day of admission. One week after discharge from hospital it was learnt that immunoglobulin M against Herpes simplex virus type 2 was positive, but acyclovir was not given because her general condition was better. Now, she is on the 3rd month of follow-up; muscle strength was 2/5 and 3/5 on the upper and lower extremities, respectively.

Although Guillain-Barré syndrome was usually reported after a viral illness or immunization, it was also rarely noted following jellyfish stings, and snake bite [1–3]. Marks et al. [4] reported a case of Fisher's syndrome, which is a variant of Guillain-Barré syndrome, following a bee sting. Our patient had initially the symptoms of viral infection, but a few days later a

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bee stung her heel. Additionally, serum immunoglobulin M against Herpes simplex virus type 2 was found to be positive. However, we could not diagnose a source of Herpes simplex virus type 2 contaminations because serum immunoglobulin M levels against Herpes simplex virus type 2 in the mother and father were found to be negative. We think that the combination of viral upper respiratory tract infection, bee sting and Herpes simplex virus type 2 accelerated the immunological mechanism in our patient because Herpes simplex virus type 2 may also cause Guillain-Barré syndrome [5].

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