Persistent hiccups: A rare prodromal manifestation of herpes zoster

Sir,

Herpes zoster (HZ) is a common viral infection that occurs due to the reactivation of dormant varicella zoster virus (VZV) from the dorsal root ganglia. The usual prodromal symptoms of HZ include hyperesthesia, tingling, itching, burning or intense pain in the involved dermatome. However, various other local and systemic symptoms may precede the vesicular eruption. Systemic involvement in the form of fever, lassitude and anorexia can also occur. Motor symptoms such as hiccups occur very rarely in the prodrome of HZ. To date, only three such cases have been reported in literature.[1-3]

An otherwise healthy 29-year-old male patient presented with a three-day history of unilateral, grouped vesicles over the left side of neck and upper chest. Two days prior to the skin eruption, he developed persistent hiccups which occurred relentlessly (4-6 cycles/ minute). The patient complained of pain and paresthesia at the site, but no constitutional symptoms. He denied history of acid reflux or peptic ulcer disease, abdominal trauma, bowel disturbance or recent intake of any drug. The cutaneous eruption prompted him to consult a dermatologist. Physical examination showed clusters of vesicles, pustules and erosions on an erythematous base that were distributed along the C3, C4 and C5 dermatomes [Figure 1]. Systemic examination was unremarkable. The complete blood count, liver and renal function tests and serum electrolyte estimations were normal. ELISA for HIV was non-reactive. Tzanck preparations from vesicular lesions revealed characteristic cytopathic changes. The skin biopsy showed an intraepidermal vesicle with multinucleated giant cells containing intranuclear inclusion bodies [Figure 1]. Treatment with acyclovir (800 mg five times a day for 7 days) was initiated. The course was uncomplicated with healing of the cutaneous lesions and resolution of hiccups.

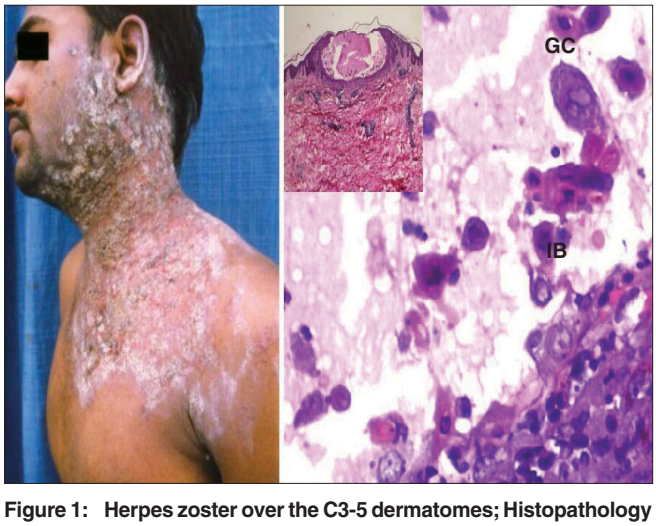

Figure 1: Herpes zoster over the C3-5 dermatomes; Histopathology (H and E, X400) showing an intraepidermal vesicle (inset), multinucleated giant cells and an inclusion body (IB)

Hiccup is an abrupt, transient involuntary contraction of the inspiratory muscles leading to sudden inspiration that is terminated abruptly by closure of the glottis. The name itself is onomatopoeic and is derived from the characteristic "hic" sound. In 1833, Shortt first recognized the association between hiccups and phrenic nerve irritation.[4] Later, the neural pathways (reflex arc) mediating hiccups were delineated. The afferents travel along with the vagus and phrenic nerve fibres, the pharyngeal plexus (C2-C4) and the sympathetic chain (T6-T12). The phrenic nerve (C3-C5) serves as the efferent pathway. The main centre for hiccups in the central nervous system still remains obscure. Any irritation or stimulation along this reflex pathway can result in hiccups.

The latency period between hiccups and the eruption is variable. Brooks described a case, where HZ, varicella and hiccups occurred in the same patient with the latter preceding the cutaneous lesions by 9 days.[1] The case reported by Efrati developed hiccups 6 days prior to appearance of HZ in the left third to fifth thoracic dermatomes.[2] Recently, Berlin *et al.*[3] reported the case of a patient with HZ suffering from persistent hiccups since 14 days prior to the onset of skin lesions as compared to 2 days in our patient. The symptoms of the patient improved with valacyclovir. Our patient denied previous episodes of persistent hiccups and did not have any prior gastrointestinal illness. Both the skin lesions and hiccups responded promptly to acyclovir therapy further strengthening this correlation.

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