



HERPES ZOSTER–ASSOCIATED PERONEAL NEUROPATHY PRESENTING AS FOOT DROP IN AN ELDERLY DIABETIC PATIENT: A RARE CASE REPORT

General Medicine

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ABSTRACT

We report a case of a 71 year old female with comorbidities of type 2 diabetes mellitus and hypertension, who had fever- 5 days, fluid filled vesicles on trunk and right foot since 3 days with right foot pain and difficulty in walking. She was examined to have lesions in L4-L5 dermatomes with right foot drop. MRI lumbar spine with whole spine screening did not reveal any explanatory abnormality and the etiology of right foot drop was presumed to be due to an outbreak of herpes zoster. She was treated with oral acyclovir and physical rehabilitation. Here we present a case of peroneal neuropathy secondary to herpes zoster in an immunocompromised patient.

KEYWORDS

Herpes Zoster, Dermatomes, Peroneal Neuropathy, Acyclovir, Foot Drop

INTRODUCTION

Herpes zoster is characterized by a painful, unilateral vesicular eruption, which usually occurs in a single or two contiguous dermatomes. It is caused by reactivation of the dormant varicella zoster virus that resides in the dorsal root ganglia of the central nervous system. The lifetime risk of developing herpes zoster is 20 to 30%, with elderly and immunosuppressed patients being most commonly affected(1). The most common complication of herpes zoster is post herpetic neuralgia. Segmental motor paresis develops in approximately 3 percent of patients with herpes zoster. Peripheral motor weakness results from spread of VZV from the dorsal root ganglia to the anterior root/horn of the spinal cord(2,3). This report describes an elderly female who developed sudden onset atraumatic foot drop after an outbreak of herpes zoster.

Case Report

A 71 year old female patient with comorbidities of diabetes mellitus and hypertension presented to casualty with c/o fever since 5 days, fluid filled vesicles on trunk and right foot since 3 days, burning sensation over right foot and difficulty in walking. She denies any history of lower limb weakness and gives history of chicken pox in childhood. On examination, she had mild swelling and tenderness to palpation on the dorsum of right foot. She has normal passive motion but weakness with active motion of ankle: dorsiflexion 0/5; plantarflexion 3/5 with L4,L5 sensory loss. Tzanck smear of the lesion revealed multinucleate giant cells with cytopathic changes consistent with herpes infection. Investigations revealed abnormal hba1c(8.5%) with elevated inflammatory markers, her serology(HIV, HbsAg and HCV) were negative. DVT of right lower limb was ruled out as she had calf muscle pain. A lumbar spine MRI, low back and right hip radiographs obtained did not reveal any structural abnormalities or polyradiculopathy that could explain the right foot drop. Nerve conduction studies showed inelicitable CMAP amplitudes from right peroneal nerve and reduced CMAP amplitudes with normal latencies from right tibial, left peroneal nerves. Lower limb sensory conduction study showed absent SNAP amplitudes from bilateral sural and right superficial peroneal nerves. F waves showed absent from right peroneal nerve and prolonged latencies from right tibial and left peroneal nerve. She was started on oral acyclovir, gabapentin with physiotherapy for right foot drop. Steroids were contraindicated during the acute phase of infection in view of immunosuppression. Muscle weakness and sensory loss persisted through the time despite rehabilitation therapy.

DISCUSSION

The patient suffered from a typical cutaneous herpes zoster followed by foot drop and to our knowledge, an isolated post zoster peroneal nerve lesion has not been reported in South India yet. The most common neurological complication is post herpetic neuralgia. Segmental zoster paralysis occurs in 0.5-5% of all herpes zoster

cases(4). Pathogenesis of motor paralysis following herpes zoster may involve viral invasion and inflammation of the motor neurons of the anterior horn cells by the VZV at the same time and site as the cutaneous eruption(5). The latency period between the onset of vesicular eruption and the development of limb weakness may vary from 1 day to 4 months.

CONCLUSION

In endemic areas, leprosy is the most common cause for foot drop. In view of the high prevalence of herpes zoster in recent times, this rare complication should be considered in peripheral limb paralysis. The purpose of this report is to create awareness about this complication among physicians.

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