Letter to Editor

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# Acute Onset Transient Toe Walking in a 4 yr. Old Boy due to H1N1 Influenza a Virus Infection

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## Abstract

During a recent influenza outbreak, a 4 year boy presented to us with acute onset toe walking following an episode of upper respiratory tract infection. Investigations were suggestive of myositis due to Influenza A virus. His symptoms subsided within 72 hours of admission and he made a full recovery with supportive care alone.

**Keywords:** Acute toe-walking; Child; Influenza

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Toe walking in children can occur either as a developmental phenomenon or may point to a serious underlying disorder neurological or neuromuscular depending on the onset and duration. In many children it is a self-limited condition. In some, a cause cannot be reliably established and referred to as idiopathic toe walking. Acute onset toe walking can cause significant anxiety to parents and the child. We report a four year old boy who had acute transient toe walking due to viral myositis caused by H1N1 influenza a virus.

A 4 year old developmentally normal male child was brought with history of high grade intermittent fever of 5 days associated with cough, cold and history of toe-walking since morning with painful calf muscles and heel on attempting to place the foot down. There was no history of difficulty in getting up from sitting position, tripping while walking or frequent falls while walking. There was no history suggestive of cranial nerve palsies or bowel and bladder involvement. There was no history of recent vigorous exercise or passing high coloured urine. There was no history of recent drug intake and no history of similar episodes in the past in the child or in any family members. His antenatal and birth history was uneventful except for oligohydramnios in mother. He was delivered by Lower segment caesarean section (LSCS), weighed 2.5 Kg at birth and was appropriately immunized for age. On examination, he was febrile with congested throat and mild tonsillar enlargement. His pulse rate, respiratory rate and blood pressure were within normal limits. Anthropometric parameters were in the normal range. Apart from toe walking and calf muscle tenderness, he had no other signs suggestive of a serious illness. Neurological examination revealed normal higher mental functions and cranial nerve examination, preserved muscle bulk with normal power and tone in all groups of muscles. Superficial and Deep tendon reflexes were preserved and there were no involuntary movements. For the above complaints, he was admitted and managed symptomatically with analgesics. Investigations revealed a total creatine phosphokinase (CPK) of 1178 and MB fraction of 90 units. Throat swab was positive for H1N1 *Influenza a* virus by real-time polymerase chain reaction. Blood urea, serum creatinine, serum electrolytes and urinalysis were normal. Over the next 48 hours his symptoms subsided markedly with defervescence and he was also able to walk well and hence discharged. Acute onset toe walking or benign acute childhood myositis (BACM) is a self-limiting condition commonly seen following infection with influenza virus [1]. Affected children are found to have characteristic wide base gait and toe walking [2]. The disease manifests as a viral upper respiratory infection with a prodrome usually lasting for few days and during the recovery phase, calf pain and toe walking become manifest. Although Influenza virus (A or B) has been the most common pathogen described [1], other viruses like parainfluenza [3], dengue [4] and pathogens like *Mycoplasma pneumoniae* [5] have also been described. In one large series [4], it was found that the presence of calf and thigh muscle tenderness on stretching, normal power

 

with normal deep tendon reflexes and markedly elevated CPK (in thousands) was able to differentiate this condition from other serious causes of gait disturbance in children. In the reported child too, the toe walking was sudden with painful calf and heel, which apparently followed a respiratory tract infection. Neurological examination was normal, CPK was elevated above 1000, urinalysis was normal and symptoms subsided within 3 days of onset suggesting a diagnosis of BACM. Antiviral medications were not started as symptoms had subsided before the etiology was confirmed. Moreover, the child did not fall under high risk category warranting Treatment with oseltamavir.

## References

1 Ruff RL, Secrist D (1982) viral studies in benign acute childhood myositis. Arch Neurol 39:261-3.

2 Jain S, Kolber MR (2009) a stiff -legged gait: benign acute childhood myositis. CMAJ 181:711-3.

3 Zvolanek JR (1984) benign acute childhood myositis associated with parainfluenza type 2 infection. Pediatr Infect Dis 3: 594-5

4 Rajajee S, Ezhilarasi S, Rajarajan K (2005) Benign acute childhood myositis. Indian J Pediatr 72: 399-400.

5 Belardi C, Roberge R, Kelly M, Serbin S (1987) Myalgia cruris epidemica(benign acute childhood myositis) associated with a Mycoplasma pneumonia infection. Ann Emerg Med 16: 579-81.