Striatal Toe

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21 year old male who was taking antipsychotic drugs from past 3 years presented with expressionless face, slow initiation of movement and abnormal upward posturing of the left big toe for 6 months. This abnormal posture of the left big toe was present even during sleep and persisted during walking. On examination left striatal toe was noticed (Figure 1). Bradykinesia and rigidity was present symmetrically, but he had no tremors. Possibility of drug-induced Parkinsonism was kept and antipsychotics were withdrawn.

A striatal toe has been defined as an apparent extensor plantar response, without fanning of the toes, in the absence of any other signs suggesting dysfunction of the cortico-spinal tract.¹ Striatal deformities of the hand and foot are abnormal postures that are common in patients with advanced Parkinson’s disease (PD); they can present in the early stages of PD and in other parkinsonian disorders.² The term striatal refers to the pathology located in the neostriatum (caudate and putamen). But it is inaccurate because there is little evidence that a striatal lesion is needed to produce the posture.² Studies on striatal foot have suggested an extrapyramidal origin also.³ Striatal deformities have been reported in 10% of patients with untreated, advanced Parkinson’s disease.⁴

Misdiagnosis of the deformity is common. Striatal toe must be differentiated from dystonia, Babinski sign and psychogenic toe.

Striatal toe deformity is fixed and is present even during sleep but dystonia commonly begins during activity and can be associated with dystonic tremor. Adult-onset primary dystonia rarely affects legs and feet.² In Babinski sign toe fanning and flexion synergy of other muscles in the same leg is seen which is absent in striatal toe.¹ In case of striatal toe there is no pain or resistance to passive plantar flexion and forced dorsiflexion of second–fifth toes does not alter the spontaneous toe extension but in case of psychogenic toe passive plantar flexion elicits pain and variable resistance and forced dorsiflexion of the second–fifth toes yields spontaneous plantar flexion of the first toe.⁵

References


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