Kinesigenic foot dystonia as a presenting feature of Parkinson's disease

Sir: Both Charcot1 and Gowers2 make brief reference to the occurrence of dystonic foot postures in patients with established Parkinson's disease, but the symptom was disregarded until Duvoisin and colleagues reported that in-turning of the foot with associated dorsiflexion of the great toe could be aggravated by levodopa therapy.3 The occasional presentation of Parkinson's disease with writer's cramp is well known, but we would like to draw attention to a similar dystonic mode of onset in the foot as an early symptom, first described by Purves-Stewart in 1898.4

At the age of 42 years a marathon runner of international repute began to experience cramp-like discomforts in his right foot after running about 10 miles. This gradually became more severe and he began to notice a curling in of his toes with a tendency for his right foot to twist inwards; this would bring him to a halt, but after a rest period of a few minutes to half an hour he would be able to continue his run for a shorter distance. Pain and discomfort became more incapacitating in the right foot and he underwent myelography and an abortive exploration of his right common peroneal nerve. Within a year of the onset of these symptoms he was forced to give up competitive running, finding that after only 5 minutes stiffness in the right popliteal region and splaying of his right foot would cause him to lose control and trip. A year later he noticed increasing difficulty with writing, micrographia was confirmed and shortly after this a mild rest tremor of the right hand was noted. Within a few months he found it almost impossible to write and typing became inaccurate. Even walking short distances on the level would cause his toes to cramp up for several minutes. Examination now revealed a right hypoactive cogwheel rigidity of the right arm and a static Parkinsonian tremor. There was also unequivocal right-sided bradykinesia and a tendency after walking for his right foot to claw.

A woman who developed mild right-sided bradykinesia with micrographia and a postural tremor of the right hand at the age of 39 years, two years later found that after jogging for about half a mile she had to rest because of severe cramps and twisting spasms of her right foot causing her lower limb to buckle with pain. A short period of rest would enable her to continue and she found that running over pebbles would also temporarily relieve the discomfort. This patient subsequently developed severe early morning foot dystonia while receiving levodopa therapy.

In a third case, a man's Parkinson's disease presented at the age of 45 years with tremor of the left hand and within four years of the onset he was experiencing curling in of the toes of the left foot after walking fifty yards on the level. Rest and massage for two to ten minutes would enable him to continue for a further distance.

This effort induced phenomenon resembles the intermediate form of familial paroxysmal dystonic choreoathetosis5 and the dystonic seizures occasionally seen in multiple sclerosis.6 In preliminary studies on two additional Parkinsonian patients who were experiencing levodopa-induced early morning and end-of-dose dystonia,7 exercise on a bicycle has consistently induced shortlived dystonia of the affected foot even at times of peak dosage. Studies are in progress to determine the underlying pharmacological mechanism of this intriguing disability.

References

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Any previous case where psychological symptoms caused by an unremoved cerebral tumour had been successfully treated by leucotomy but it is well-established that psychiatric symptoms caused by organic brain disease may at first respond well to other physical methods of treatment8 and this occurrence can be a pitfall for the unwary psychiatrist. We have experience of a further patient with a frontal meningioma whose initial depressive symptoms remitted for several months after electroconvulsive therapy.

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Mild Reye's syndrome in an adult

Sir: Since the description of Reye's syndrome in 19631 several thousand cases have been notified in the USA alone.2 The small numbers of adult patients all had severe encephalopathies, often with fatal outcome.3-7

A 16-year-old male developed typical varicella having been exposed to the illness by his sister. Initial complaints were solely of rash and mild headache. On the fourth day of the illness he suddenly developed profuse vomiting, confusion and aggressive behaviour. He received no medication

References