HICCPUS ASSOCIATED WITH DOPAMINERGIC TREATMENTS IN PARKINSON’S DISEASE

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Background & significance: Hiccups are sudden, involuntary, spasmodic contractions of the diaphragm and external intercostal muscles that result in inspiration, which abruptly ends with the closure of the glottis. Gastric distension and alcohol consumption are frequent cause of hiccup in adults. In some instance, drugs such as corticosteroids, antibiotics, and benzodiazepines can induce hiccups. We report a case of persistent hiccup, occurring with dopaminergic medication in Parkinson’s disease patient.

Case: A 73-year-old man noted gradually progressive slowing of movement, left hand tremor, and shuffling gait. He was diagnosed as Parkinson disease (PD) and initiated on levodopa/benserizide (300/75 mg/day) and pramipexole (0.375 mg/day) divided in three doses. Mild benefit was observed, but intractable hiccups developed after 1 week. The hiccups are improved after cessation of levodopa, but not all. After discontinuing pramipexole, hiccups disappeared completely. He continued treatment with levodopa/carbidopa (225/56 mg/day). At 1 year follow up, he has not experienced hiccups again.

Conclusions or comments: Some antiparkinsonian medications, particularly levodopa and dopamine agonists (DA) can cause hiccups. The exact mechanism of hiccups induced by dopaminergic therapies is unknown. A proposed hypothesis is that D3 dopamine receptors with an effective and prolonged stimulation by DAs can be involved in generating this symptom. We conclude that severe hiccups may occur in Parkinson patients treated with normal therapeutic doses of L-dopa. Although this association appears rare, it merits full clinical attention because hiccups can be very debilitating.