

Progressive movement disorder after ischemic stroke on thalamus - A case report

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Introduction

A wide variety of complications develop after ischemic stroke. Among them, Abnormal involuntary movement (AIM) is a rare complication and can be divided into two subtypes such as transient and permanent. The transient type of AIM usually appears immediately after the stroke, and the permanent type may appear after several months to years of stroke. Pharmacological treatment (mainly levodopa) is known to be sensitive on permanent type of AIM.

Case

We report a 57-year-old female case of AIM after thalamic stroke which slowly progress and intractable to medication. She had been suffered from hemiparesis caused by acute infarction on right cerebellar and left thalamus and received rehabilitation treatment for 5weeks. At the time of discharge, muscle power on the involved side was good grade and modified Barthel Index (MBI) score was 67 points. At 10 weeks after the stroke attack, involuntary tremor-like movement was developed at her right upper limb and progressed slowly in the involved body part as well as severity. It ceased during sleep or if patient is not conscious of the tremor. However, when she was instructed to keep her hand stay still, she became aware of her hand and the tremor appears at low amplitude. It was exacerbated by specific posture such as elbow flexion and tasks of reaching and grasping. The MBI score was decreased to 41 in spite of maintenance of muscle power of right upper limb. At first, clonazepam was used but the symptom was worsened without improvement. Therefore, brain MRI was performed and there was no interval change. Then, clonazepam dose was increased and levodopa, carbidopa and propranolol were added at each visit. But the symptom continued to progress without response to the medication. Primidone was added, but stopped due to side effects such as dysarthria and deconditioning. The symptom had been aggravated up to about 5months after the onset despite medication and is now continuing without improvement or worsening of symptom.

Conclusion

Although there are several reports of abnormal involuntary movement disorder after stroke with improvement from levodopa administration, this case is slowly progressive and intractable to the medication when compared with previously reported cases. Further studies on the treatment for stroke-induced permanent type of AIM not well-responding to therapy may be needed.