

## **Holmes tremor treated with anticholinergics : A Case Report**

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### **Introduction**

Dopaminergics has been used as treatment of choice for Holmes tremor (HT). Anticholinergics was also regarded to be an option of treatment, but only a few cases have been reported to have successfully treated with anticholinergics. We report a case that a patient with HT, who had not responded to dopaminergics and got a dramatic improvement after taking anticholinergics.

### **Case report**

In August 2017, a 58-years-old woman with previously healthy condition was admitted to the department of neurology through the emergency unit with headache and vomiting. Since then, her mental status changed due to ruptured PCoA aneurysms. She underwent coil embolization, burr hole trephination and SDH removal. In October 2017, hydrocephalus was found in CT. So we gradually tapered the VP shunt pressure from 120mmH<sub>2</sub>O to 40mmH<sub>2</sub>O. One month later, hand tremor occurred on the left (Resting and postural tremor, 3.5-4Hz, moderate amplitude < 1cm). This tremor was measured as grade 2 when we used the Fahn-Tolosa-Marin scale(FTM) part A. Laboratory Results including serum electrolytes, urea, free T4 were within normal limits. No interval changes were found in the EEG from Oct. 2017. Clonazepam, propranolol and levodopa were tried for alleviating tremor. They however had no effect on her tremor. In March 2018, we prescribed procyclidine at a dose of 5mg, three times a day. The effect was so dramatic that the amplitude of HT began to decrease after 2 days of taking procyclidine.

### **Conclusion**

We report a case of dopaminergics-resistant HT that was treated with anticholinergics. In this case, we found out that anticholinergics could be a plausible option of treatment for HT, when HT is resistant to dopaminergics.