



## Peduncular Hallucinosi

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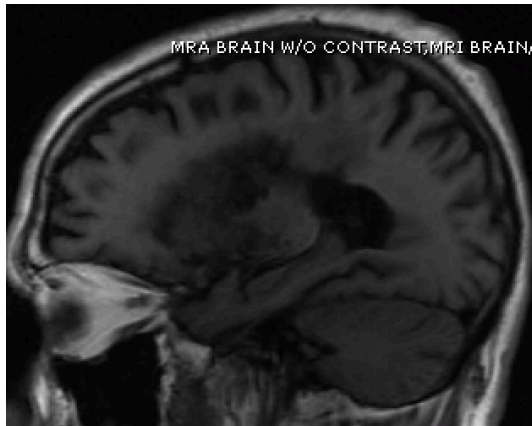
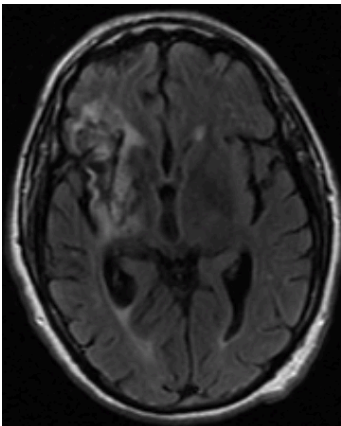


### ABSTRACT

A 57yo male with no psychiatric or drug use Hx and a PMHx of HTN, HLD, and DM2 sustained a right-sided MCA CVA with dense, left-sided hemiplegia and total left-sided neglect. He developed Peduncular Hallucinosi shortly afterwards with tactile and visual hallucinations that interfered with his recovery. Olanzapine was effective in controlling the hallucinations and improving his function.

### CASE DESCRIPTION

A 57yo male with no psychiatric or drug use Hx and a PMHx of HTN, HLD, and DM2 sustained a right-sided MCA CVA (as seen in Figure 1) with dense, left-sided hemiplegia and total left-sided neglect. Four weeks after his stroke he developed vivid, tactile and visual hallucinations on the left side of his body while falling asleep. He knew that these hallucinations were not real, yet they were disrupting his sleep and quality of life. He was started on Quetiapine but did not experience any relief despite six months of proper titration. His functional status did not improve as expected during his first round of acute inpatient rehabilitation and he was discharged to SNF at Max A for ADLs and Mod A for ambulation with wheelchair follow. He was readmitted to acute inpatient rehabilitation eight months after his stroke with worsened function - dependent for all ADLs and non-ambulatory. He was started on Olanzapine 2.5mg HS instead of Quetiapine. Within 2 days his hallucinations ceased, he slept through the night, and progressed cognitively, psychologically, and functionally. Upon discharge home, he was Mod A for most ADLs and walked 50ft with 2 turns at a Mod A level.



**Figure 1:** FLAIR T2 Axial and T1 Sagittal views of MRI Brain with and without contrast demonstrating chronic, large right MCA CVA with involvement of the frontal lobe, parietal lobe, insular cortex, anterior limb of the internal capsule, and lentiform nucleus.

### DISCUSSION

Peduncular hallucinosi is a rare and disturbing complication of strokes. Vascular involvement of the midbrain, thalamus, and/or basal ganglia is often seen in patients with this condition, but the exact mechanism underlying the symptoms remains unknown (Penney, 2014). It is speculated that there is either disruption within the reticular activating system or the basal ganglia. Peduncular hallucinosi is characterized by vivid, visual and tactile hallucinations. A defining feature that distinguishes this condition from psychiatric ones is that the patients are often aware that their hallucinations are not real. Many prior case reports have depicted only nocturnal hallucinations associated with the sleep-wake cycle, such as in our case, but this is not universal. Penney et al state that most cases resolve without pharmaceutical intervention, but anti-psychotics may prove helpful in refractory cases (2014).

In our case report, the patient described had vascular involvement of the right lentiform nucleus, which is part of the basal ganglia. He would experience simultaneous visual and tactile, lifelike hallucinations within his left visual field and left body upon falling asleep at night. His condition was refractory to six months of Quetiapine, but responded quickly and appropriately to Olanzapine. It stands to reason that Olanzapine is an effective medication in cases of refractory peduncular hallucinosi and perhaps early diagnosis and treatment of this condition may prevent a delay in functional recovery.

### CONCLUSION

There is limited data regarding treatment of peduncular hallucinosi. One other case report found success with Olanzapine, which prompted our team to trial the medication (Spiegel, 2011). Thankfully, the patient described in this case report responded very well to Olanzapine and had improvement of his symptoms within a few days. With this case report we hope to strengthen the literature regarding successful treatment of peduncular hallucinosi and prevent delays in functional recovery.

### REFERENCES

- Penney L, Galarneau D. Peduncular hallucinosi: a case report. *Ochsner J.* 2014 Fall;14(3):450-2. PMID: 25249815.
- Spiegel D, Barber J, Somova M. A potential case of peduncular hallucinosi treated successfully with olanzapine. *Clin Schizophr Relat Psychoses.* 2011 Apr;5(1):50-3. doi: 10.3371/CSRP.5.1.7. PMID: 21459739.