

### **P32: Poststroke psychosis following pontine lesions in geriatric patients: a case series**

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**Objectives:** To analyze psychotic symptoms following pontine stroke to better understand the neuroanatomy underlying the symptoms.

**Methods:** A case series including three cases of poststroke psychosis following pontine lesions and a literature review will be presented.

**Results:** Case 1: 67-year-old female with hypertension, hyperlipidemia, hypothyroidism, chronic kidney disease, and stroke. She presented with daily tactile hallucinations on her left face and neck that felt like a snake wrapped around her, occasional visual and tactile hallucinations of a cat, and occasional sensations that her body was on fire. Initial MRI showed diffuse atrophy, small vessel ischemic changes, and chronic hemosiderin staining of the pons and left superior basal ganglia. Repeat MRI identified bilateral thalamic lacunar infarcts, an old left caudate/corona radiata intracranial hemorrhage, and prior left occipital intracranial hemorrhage. Symptoms were managed with quetiapine 12.5mg daily.

Case 2: 74-year-old female with anemia, hypothyroidism, orthostasis, depression, mild cognitive impairment, temporal lobe epilepsy, and two strokes. She presented with near-daily distressing tactile hallucinations of worms, rubber bands, insects, snakes, and toy car wheels in her mouth. MRI showed chronic ischemic changes and central pontine and periventricular white matter lesions bilaterally with mild/moderate atrophy. Multiple medication trials and ECT treatment were aborted due to confusion and paranoia. Symptoms were managed with risperidone 2mg daily.

Case 3: 80-year-old female with hypertension, hyperlipidemia, coronary artery disease, atrial fibrillation, gastrointestinal bleed, and depression. She presented with distressing delusions that she was infested with pinworms throughout her gastrointestinal tract, along with visual hallucinations of the worms. MRI showed nonspecific white matter changes and a small T2 hyperintensity in the left pons of either a lacunar infarct or ischemic microangiopathic changes. After a partial hospitalization program enrollment and a subsequent hospitalization, symptoms were managed with risperidone 1.5mg daily.

**Conclusions:** Few case reports exist that describe peduncular hallucinosis, auditory hallucinations, or persistent tactile hallucinations following ischemic or hemorrhagic pontine lesions. The above cases demonstrate additional evidence of tactile and visual hallucinations following pontine stroke in geriatric patients, with imaging data localizing the lesions. Further research is needed to better understand the differing presentations, functional circuits, and neurochemical imbalances of psychosis following pontine lesion to improve diagnosis and treatments.