

## **P-151 - POST TRAUMATIC STRESS DISORDER SECONDARY TO CEREBRAL ANEURYSM RUPTURE**

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**Introduction:** We will describe the case of a 35-year-old black female who developed PTSD secondary to cerebral aneurysm rupture and hemorrhage.

**Case summary:** Ms. X is a 35-year-old African American female with a history of depression who was admitted to the inpatient unit of a teaching hospital for suicidal ideation. Ten months prior to admission, she suffered from subarachnoid hemorrhage from a ruptured anterior communicating artery aneurysm with resulting hydrocephalus. At that time, her CT angiogram confirmed anterior communicating artery aneurysm. She denies history major traumatic events in her life. Her symptoms included flashbacks surrounding the day her cerebral aneurysm ruptured which occur 3x/week. She described symptoms of hypervigilance and panic attacks and she avoids environmental stimuli that remind her of the events surrounding the ruptured aneurysm. These symptoms were not present prior to her ruptured aneurysm.

**Discussion:** We hypothesize that her cerebral aneurysm may have reduced blood flow to her prefrontal cortex (PFC) resulting in ischemic damage. The PFC regulates responses from the amygdala in response to stimuli. An intact PFC is necessary for appropriate extinction of conditioned fear responses. Patients with PTSD are known to demonstrate intense reactions when recollecting the traumatic events related to the PTSD. Such patients have also demonstrated hypoactive medial PFC. Neuroimaging research and functional connectivity studies have revealed cognitive activation, and the role of the medial PFC, amygdala, and hippocampus, in mediating symptom formation in PTSD.

**Conclusion:** Practitioners should be aware that damage to the PFC may contribute to development of PTSD.