Is it real or is it all in my head?

A case of auditory hallucinations in a patient with familial cavernous malformation syndrome

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Background

- A majority of individuals with familial cerebral cavernous malformation syndrome (FCCM) often present between the second and fifth decade with new onset seizures, focal neurologic deficits, headaches, or cerebral hemorrhage.
- However, there have been few reports of patients who initially presented with primarily neuropsychiatric symptoms with comorbid seizures.
- This case demonstrates the potential of these malformations to cause neuropsychiatric symptoms in the absence of active bleed or seizures.
- In addition, it underscores the diagnostic dilemma presented to CL psychiatrists without an objective explanation for these symptoms.

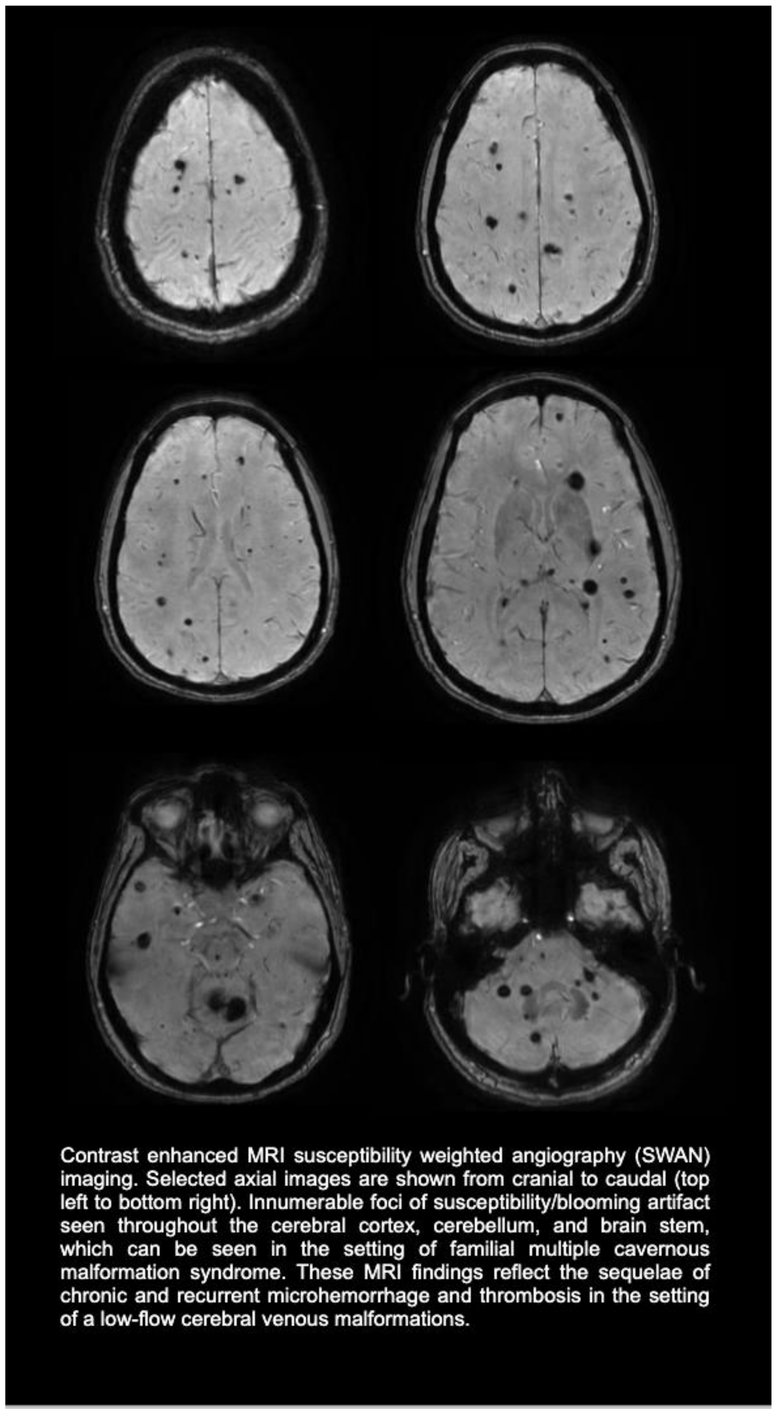
Case

- Patient is a 51-year-old married female, employed, highly functional at baseline
- Past medical history: FCCM, hemorrhoids, left sided hearing impairment and tinnitus
- Past Psychiatric history: post-partum blues (2010)

HPI:

- Patient was admitted to the medical floor for acute onset of auditory hallucinations in the setting of FCCM.
- Patient reported onset of auditory hallucinations one year ago, from March 2020 to August 2020, which remitted spontaneously and later reemerged, leading to this admission.
- Patient denied any episodes prior to one year ago. Patient did not endorse symptoms of mood disorder, anxiety disorder or other psychotic symptoms, including delusions or disorganized thought patterns or behavior.
- Patient was trialed on risperidone and quetiapine with no improvement.

MRI Imaging



Contrast enhanced MRI susceptibility weighted angiography (SWAN) imaging. Selected axial images are shown from cranial to caudal (top left to bottom right). Innumerable foci of susceptibility/blooming artifact seen throughout the cerebral cortex, cerebellum, and brain stem, which can be seen in the setting of familial multiple cavernous malformation syndrome. These MRI findings reflect the sequelae of chronic and recurrent microhemorrhage and thrombosis in the setting of a low-flow cerebral venous malformations.

Case (continued)

MOCA: demonstrated deficits in executive functioning, visuospatial, memory, and attention.

Results:

- CBC, CMP, TSH within normal limits
- Utox negative; BAL < 10
- UA negative
- MRI demonstrated lesions throughout the brain parenchyma, consistent with FCCM.
- EEG did not demonstrate any seizure activity.

Discussion

- Often, patients with FCCM present with new onset seizure in the context of bleeding. The usual goal of treatment is to control seizure activity via anti-epileptic medications and surgery is indicated for refractory cases.
- There has been one reported case of acute psychosis in the setting of single hemorrhagic cavernous angioma of the corpus callosum and resolution of symptoms after surgical resection.
- Antipsychotics provided little benefit in our patient, indicating the need for further guidance in the nonsurgical management of neuropsychiatric symptoms, secondary to FCCM.
- Furthermore, it suggests the potential of these malformations to disrupt the brain-network connection, leading to neuropsychiatric symptoms.

References

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