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Atypical Presentation of Non-Aneurysmal Subarachnoid Hemorrhage

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Atypical Presentation of Non-Aneurysmal Subarachnoid Hemorrhage

Aleks Spirollari DO, James Espinosa MD, Kevin Dwyer DO

Introduction

When most clinicians think of subarachnoid hemorrhages (SAH), they think of “most severe headache of my life” as the most common chief complaint. However, it is only reported in about 70% of patients with SAH.² Other symptoms may include nausea and/or vomiting, stiff neck, visual disturbances, loss of consciousness, weakness, and seizures. Patient history may involve previous SAH, hypertension, oral contraceptives in women, recent trauma, family history of intracranial aneurysms, history of smoking, alcohol, and drug use.² However, there are atypical causes of SAH that may be missed upon initial evaluation for patient’s that may not have the above mentioned symptoms or risk factors.¹ When evaluating the patient with a neurological complaint that does not in the category of peripheral nervous system distribution, it is worth considering outliers that may be related to the central nervous system, such as a SAH. Working up such differentials leads to proper disposition of the patient population and decreases the possibility of long term complications or mistreatment.

Case Presentation

64 y.o M with previous medical history of HTN presents to the ER for evaluation of intermittent numbness/weakness of left upper extremity. He reports symptoms starting at left elbow and radiating down to his left hand with no dermatomal distribution. He also had associated left lip numbness and a brief episode of expressive aphasia as well. They last minutes at a time and no exacerbating or relieving factors. Attempted acupuncture outpatient with no relief. Denies any headache, trauma, visual changes, nausea, or vomiting. Denies any anticoagulant use.

Vitals are stable with BP of 146/62 upon arrival.

On physical exam, patient has no focal neurological findings. Sensation is intact bilaterally and strength is 5/5 on bilateral upper and lower extremities. His speech is clear and visual acuity was intact. NIHSS is 0.

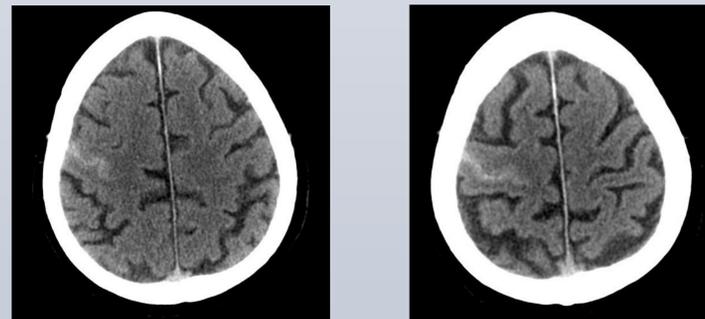
Intervention/Treatment

Due to patient’s atypical presentation of neurological symptoms and lack of dermatomal distribution of upper extremity numbness/weakness, further evaluation of symptoms was done initially with CT head without contrast. It revealed a subarachnoid hemorrhage in the right superior frontal sulci with no mass effect or midline shift. Patient was transferred to a neuro ICU for further monitoring by neurosurgery.

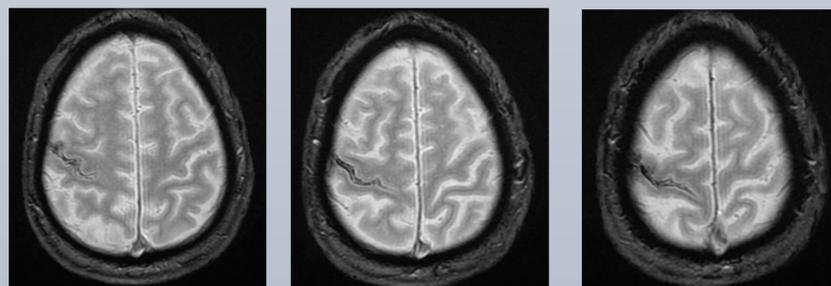
Had extensive testing performed, which included an MRA brain, MRV Head, CTA Head and Neck, and Cerebral Angiogram. There were no findings suggestive of cerebral aneurysm or venous thrombosis on further imaging. He was also monitored by continuous EEG which did not reveal any seizure activity. Patient was discharged with a course of Lacosamide for seizure prophylaxis.

Lab Results/Data

CT Head w/o Contrast



MRI Brain w/o Contrast



Discussion

Atypical subarachnoid hemorrhages that do not present with the common chief complaint of headache are common and should be included in the differential diagnosis when considering neurological complaints. Most episodes of SAH are caused by trauma and intracranial aneurysms, which include 85% of non-traumatic causes. However, there may be cases such as this in which the cause is not clear. It is possible that in idiopathic cases such as this that make up the remaining 15%, the patient population may have atypical presentations.⁴ Hemorrhagic origin is unknown in 10-20% of patients with spontaneous SAH and a study with 472 patients found that long term neurological outcomes are generally good for these types of SAH. However, hydrocephalus and delayed cerebral ischemia do occur.⁵

The patient in this case did not have any dermatomal distribution of his sensory changes and weakness, which led to further investigation and diagnosis of a SAH. Focal neurological deficits were noted to be in 10.3% of patients in a study with 213 patients presenting with SAH.³ These symptoms may also mimic a transient ischemic attack, as described in one study that revealed 7 patients with focal paraesthesia who had focal subarachnoid hemorrhages. Only 1 out of the 7 patients presented with a headache.⁷ The clinical decision making rules do not currently account for these atypical presentations and should not be too heavily relied on. When evaluation the patient with unexplained neurological symptoms, it is important to keep a cerebrovascular accident in the differential diagnosis.

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