Subdural Hematoma Presenting as Expressive Aphasia: A Case Report and Literature Review

While subdural hematomas (SDH) account for nearly half of all intracranial hemorrhages, few case reports cite aphasia as an isolated symptom.

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Patients with intracranial bleeds present with a myriad of possible symptoms, including headache, altered mental status, seizures and focal motor and sensory deficits. Subdural hematomas (SDH) account for nearly half of all intracranial hemorrhages. There is a paucity of case reports citing aphasia as an isolated symptom. The goal of this paper is to add to the literature a report of expressive aphasia as the primary complaint in a patient found to have an acute or chronic SDH. A literature search was performed using the key-words “aphasia” and “SDH.”

CASE PRESENTATION

A 59-year-old Caucasian man with metastatic lung cancer presented to the emergency department with expressive aphasia. He is a classical musician who lives alone in an apartment and hadn’t spoken to anyone. He didn’t realize he couldn’t speak. A friend called and when the patient was unable to communicate, the friend called 911.

The night prior to his presentation the patient suffered a minor head trauma when he stood up from bending over and hit his head on a marble table. He went to bed and was woken with a severe headache. No history of level of consciousness change or frank seizure was noted.

Additional past medical history includes chronic deep vein thromboses (not on coumadin), and hypertension controlled by benazepril and atenolol. One year prior to this admission the patient developed a spontaneous subdural hematoma while on anticoagulation for treatment of deep vein thromboses. His anticoagulant was stopped after the initial bleed. He had no clinical sequelae from the bleed, and had a chronic area of hypodensity in the left frontoparietal region from the event.

For lung cancer, his treatment regimen consisted of carboplatin; his last chemotherapy session was three months prior to visit.

Patient has no prior neurosurgical history. Social history includes moderate alcohol use, no drug use, no smoking history.

On physical exam, his vitals were stable, he was afebrile and normotensive. He was awake and alert with severe expressive aphasia, and mild right facial droop and right pronator drift were present.

Basic laboratory evaluation was within normal limits. (Should mention specifics of his platelet count, INR and PT/PTT.)

CT revealed an interval acute on chronic subdural hematoma spanning the left frontoparietal region.

He was admitted to neurosurgical service for planned craniotomy with evacuation of SDH. A small left frontal craniotomy was performed without complications. A subdural drain was left in place for 24 hours postoperatively.
His aphasia and reported weakness resolved completely, and he was without residual deficit.

**DISCUSSION**

Our literature search revealed 34 cases of SDH associated with expressive aphasia, as summarized in Table 1. There is a recurring incidence of subtle right sided motor and sensory symptoms. In the majority of cases, function was regained after evacuation of the hemorrhage. In our case despite minimal mass effect, the patient manifested a frank expressive aphasia, necessitating early surgical evacuation. Had this patient presented with only trace pronator drift alone, conservative treatment would have been considered, given the lack of significant mass effect. In this case the speech disturbance clearly resulted in early consideration of craniotomy with the resulting resolution of symptoms postoperatively confirming the SDH as the etiology of the aphasia.

**CONCLUSION**

Aphasia, or other focal neurologic deficits, can be the primary presenting symptom of a subdural hematoma. CT scan of the head without contrast remains the mainstay in identifying occult brain bleeds upon initial presentation. Further neuroimaging work up including CTA of the head and neck, MRI/A of the brain, and/or femoral cerebral angiogram is recommended in select cases of unknown etiology of the source of hemorrhage. Early neurosurgical evaluation and consideration of evacuation of the hematoma is recommended. Complete resolution of aphasia was noted following craniotomy and clot evacuation in the case presented here. Restoration of language function should result in early and emergent consideration of surgical treatment of subdural hematoma in medically and hematologically stable patients with focal speech deficits.

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<table>
<thead>
<tr>
<th>Author, Date</th>
<th>Cases reported</th>
<th>Country of Origin</th>
<th>Aphasia type, other symptoms</th>
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<tbody>
<tr>
<td>Aoki, 1996</td>
<td>1</td>
<td>Japan</td>
<td>12 days later, amnestic</td>
</tr>
<tr>
<td>Bossi, 1962</td>
<td>2</td>
<td>Italy</td>
<td>motor deficit</td>
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<tr>
<td>Dell, 1983</td>
<td>4</td>
<td>US</td>
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<tr>
<td>Kaminski, 1992</td>
<td>3</td>
<td>US</td>
<td>right sided sensory-motor deficit</td>
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<td>Kuwahara, 2004</td>
<td>1</td>
<td>Japan</td>
<td>motor, right limb monoparesis</td>
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<td>Lazzarino, 1989</td>
<td>1</td>
<td>Italy</td>
<td>right hemiparesis</td>
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<td>Moore, 1991</td>
<td>1</td>
<td>US</td>
<td>transcortical motor</td>
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<tr>
<td>Melamed, 1975</td>
<td>2</td>
<td>US</td>
<td>expressive dysphasia, focal sensory deficit</td>
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<td>Mishriki, 1999</td>
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<td>Moster, 1983</td>
<td>9</td>
<td>US</td>
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<td>Nagaratnam, 1992</td>
<td>1</td>
<td>Australia</td>
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<td>Nicoli, 1990</td>
<td>3</td>
<td>France</td>
<td>motor, speech interruption</td>
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<td>Rahimi, 2000</td>
<td>1</td>
<td>US</td>
<td>intermittent, isolated</td>
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<td>Sigwald, 1954</td>
<td>2</td>
<td>France</td>
<td>Hemianopsia</td>
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<td>Sterna, 1999</td>
<td>1</td>
<td>Poland</td>
<td>memory and intellectual deficit</td>
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<td>Vajramani, 2008</td>
<td>1</td>
<td>Netherlands</td>
<td>bilingual, lost second language</td>
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<td><strong>Total</strong></td>
<td><strong>34</strong></td>
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