A hemorrhagic vestibular schwannoma presenting with rapid neurologic decline: A case report

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INTRODUCTION

Less than 15-percent of episodes of intracranial bleeding originate from brain tumors and in the setting of subarachnoid hemorrhage (SAH). Thirty-two of these tumors occurred in the setting of trauma, anticoagulation, previous stereotactic biopsy or craniotomy. In contrast to the insidious progression typified by non-hemorrhagic vestibular schwannomas (VSs), those with gross intratumoral bleeding most often present with acute cranial neuropathies and symptoms of subarachnoid hemorrhage. In surgically fit patients, we advocate urgent microsurgical resection. Simple observation with serial radiography may risk repeated hemorrhage while the role of radiosurgery is not yet defined.

Study Design & Setting

Single case report with a review of the literature; tertiary academic referral center.

Case Report & Literature Review

In 2003, a 65-year-old male presented to an local emergency department with abrupt onset headache, slurred speech, and left-sided motor weakness. Computed tomography (CT) revealed a left-sided 2.0 cm cerebellopontine angle mass consistent with a VS. The patient subsequently resulted in 4% vestibular and spontaneous hemorrhage. In the present case, radiographic evaluation and management of a 66-year-old male with a histologically confirmed hemorrhagic VS and review the literature.

Case Report

In conclusion, sudden spontaneous hemorrhage with acute neurological decline is a rare but potentially devastating complication of VS. ITH may be provoked by anticoagulation status, trauma, rapid growth or rapid onset severe left sided headache, from sleep. Computed tomography (CT) and magnetic resonance imaging (MRI) revealed a left-sided 2.0 cm cerebellopontine angle mass consistent with a VS. The patient subsequently experienced an acute ITH. Hematology and coagulation laboratory studies were normal. The patient subsequently underwent a left suboccipital craniectomy with complete resection of a histologically confirmed hemorrhagic VS.

Table 1. Published reports of spontaneous intratumoral hemorrhage within vestibular schwannomas

<table>
<thead>
<tr>
<th>Case</th>
<th>Author, Year</th>
<th>Age</th>
<th>Sex</th>
<th>Side</th>
<th>History</th>
<th>Radiographic evaluation</th>
<th>Acute Symptoms</th>
<th>Acute signs</th>
<th>SAH</th>
<th>Intratumoral</th>
<th>Outcome</th>
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<tr>
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<td>61F</td>
<td>35</td>
<td>L</td>
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<td>R</td>
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In conclusion, sudden spontaneous hemorrhage with acute neurological decline is a rare but potentially devastating complication of VS. ITH may be provoked by anticoagulation status, trauma, rapid growth or rapid onset severe left sided headache, from sleep. Computed tomography (CT) and magnetic resonance imaging (MRI) revealed a left-sided 2.0 cm cerebellopontine angle mass consistent with a VS. The patient subsequently experienced an acute ITH. Hematology and coagulation laboratory studies were normal. The patient subsequently underwent a left suboccipital craniectomy with complete resection of a histologically confirmed hemorrhagic VS.

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REFERENCES

9. Kim SH, Youm JY, Song SH, Kim Y, Song KS. Vestibular schwannoma with repeated intratumoral hemorrhage on CT imaging. Ten of 11 were treated with surgery, while one patients expired before surgical intervention could be attempted after resulting tonsillar herniation.

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