# Sudden-Onset Dizziness Revealing a Fourth-Ventricular Ependymoma with Obstructive Hydrocephalus in a 64-Year-Old Man

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## Introduction

Intracranial ependymomas are uncommon in adults and typically present with gradually progressive symptoms related to cerebellar dysfunction or mass effect. Presentation with abrupt dizziness and a normal neurological examination is unusual and may be misattributed to benign vestibular disorders. This case highlights the importance of early neuroimaging in older adults with unexplained disequilibrium.

## Objectives

To emphasize the need for prompt neuroimaging in older adults presenting with acute dizziness and to illustrate an atypical presentation of a fourth-ventricular ependymoma causing obstructive hydrocephalus.

## Methods

We describe a case of a 64-year-old man presenting with sudden-onset dizziness and gait instability. Evaluation included clinical examination, neuroimaging with CT and MRI, neurosurgical intervention, histopathologic analysis, and molecular tumor profiling.

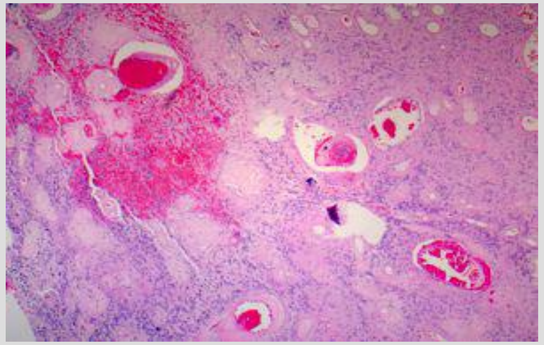
## Results

A 64-year-old man with a history of asthma presented with a sudden episode of dizziness accompanied by a sensation that his legs “gave out,” raising concern for acute instability. He denied syncope, true vertigo, focal weakness, sensory deficits, headache, or visual changes. On examination, he was hemodynamically stable, and a detailed neurologic exam was nonfocal, without cerebellar signs, cranial nerve deficits, or gait abnormalities on initial assessment.

## Results

Given his age and atypical symptom description, a non-contrast head CT was obtained, revealing obstructive hydrocephalus with ventricular enlargement and a partially visualized mass at the inferior aspect of the fourth ventricle. Subsequent MRI of the brain demonstrated a 3-cm enhancing lesion at the cranio-cervical junction involving the fourth ventricle, causing significant obstruction of cerebrospinal fluid flow and marked ventriculomegaly, highly suspicious for a posterior fossa neoplasm.

The patient underwent suboccipital craniotomy with gross total resection of the tumor, followed by ventriculoperitoneal (VP) shunt placement for management of hydrocephalus. Postoperative MRI confirmed no residual enhancing mass.



Histopathologic examination revealed a WHO Grade 2 ependymoma. A second-opinion review confirmed the diagnosis with features suggestive of possible subependymoma. Molecular profiling demonstrated a pathogenic MUTYH mutation with low tumor mutational burden.

The patient recovered without new neurologic deficits and was planned for close clinical and radiologic surveillance given the risk of recurrence.

## Conclusion

This case underscores the importance of maintaining a broad differential diagnosis for acute dizziness in older adults, even in the absence of focal neurologic findings. Normal examination does not exclude a central etiology. Early neuroimaging facilitated prompt identification of a fourth-ventricular ependymoma with obstructive hydrocephalus and enabled timely neurosurgical management, preventing potential neurologic deterioration.