Acute Onset Horner's Syndrome and Exacerbation of Incomplete Tetraplegia During Acute Inpatient Rehabilitation: A Case Report

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CASE DIAGNOSIS

Acute Horner's Syndrome and exacerbation of incomplete tetraplegia secondary to acute cervicothoracic hematoma.

CASE DESCRIPTION

A 33 year-old female presented with right lower extremity weakness after a motor vehicle accident. MRI spine revealed an intramedullary mass centered at T1 with associated multiseptated syrinxes (Fig. 1). She underwent mass resection with C6-T2 posterior instrumented fusion, which was complicated by new left lower extremity weakness. Pathology was diagnostic for hemangioblastoma, and workup was negative for Von Hippel-Lindau Syndrome. Her left leg weakness persisted, but her right leg strength returned almost to baseline while in the acute care facility.

After discharge to acute inpatient rehabilitation, she developed an acute right lower extremity deep vein thrombosis (DVT), and therapeutic anticoagulation was initiated. 4 days later, she developed acute left Horner's Syndrome and worsening bilateral leg weakness. Repeat MRI spine showed an acute intradural and intramedullary hematoma extending from C6-T3 (Fig. 2). She underwent evacuation of the hematoma and was restarted on DVT prophylaxis. During her subsequent 4-week course in rehabilitation, her Horner's syndrome resolved and she regained functional use of her right lower extremity.

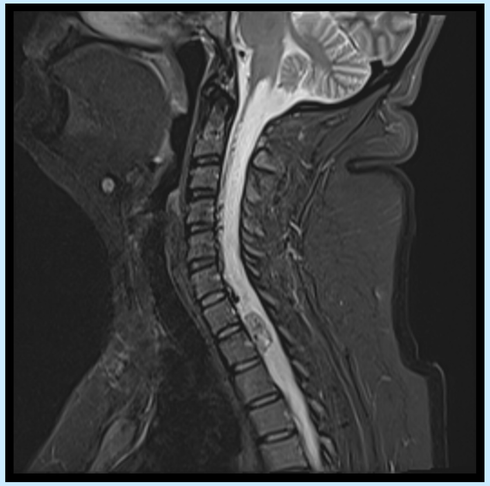

Figure 1. T2-weighted image demonstrating hemangioblastoma at C7-T1.

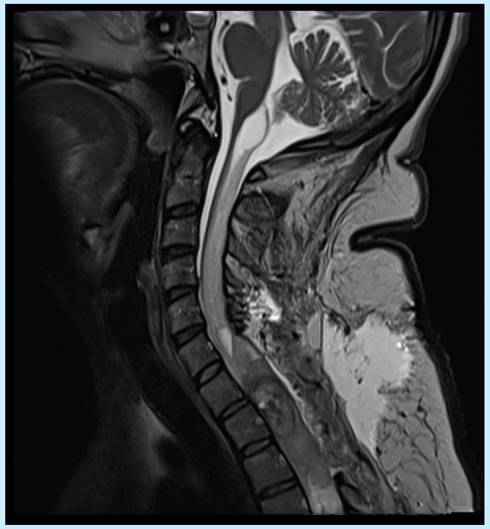

Figure 2. T2-weighted image demonstrating post-operative hematoma spanning from C6-T3.

DISCUSSION

This is an unusual case of Horner's Syndrome with worsening tetraplegia as the primary clinical manifestation of an acute cervicothoracic spinal cord hematoma. Given the patient's presentation with acute ptosis, miosis, and exacerbation of tetraplegia, there was initial concern for hemorrhagic stroke in the setting of therapeutic anticoagulation. Other possible explanations for acute Horner's Syndrome in this patient included residual cervicothoracic spinal cord tumor, delayed trauma from tumor resection, hardware complication, and syringomyelia. However, she did not present with these exam findings until after developing the intradural and intramedullary spinal cord hematoma.

CONCLUSION

One must consider cervicothoracic spinal cord hematoma as a possible etiology of acute Horner's Syndrome, especially in the setting of recent spinal cord surgery and therapeutic anticoagulation. A thorough history and physical examination are key to localizing the source of sympathetic disruption. In this case, evacuation of the intradural and intramedullary hematoma resulted in resolution of the Horner's Syndrome and subsequent functional improvement.