Persistent Horner's after Anterior Cervical Discectomy and Fusion: A Case Report

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CASE REPORT

The patient is an otherwise healthy 42 year old female with a past medical history of chronic neck pain for 11 years. The patient denied history of an inciting event. She managed her pain successfully with therapy and over the counter medications. 10 months ago, she presented with neck pain and paresthesia involving her left arm and hand. Neurological exam revealed diminished sensation in left lateral arm involving digits 4 & 5 as well as a positive left Hoffman's sign. Cervical MRI revealed C4-5 disc protrusion with left-sided cord compression and hemi-cord edema. The patient was referred to neurosurgery and underwent C4-5, C5-6 anterior cervical discectomy and fusion (ACDF). On postoperative day 1, she was noted to have anisocoria with the right pupil smaller than left, as well as right ptosis. She was evaluated by neuro-ophthalmology. A residual Horner's syndrome was confirmed with apraclonidine test. Horner's syndrome was felt likely due to a complication of surgery. Seven months after surgery, her Horner's Syndrome has persisted.

DISCUSSION

Horner's Syndrome is a triad of miosis, ptosis, and anhidrosis as a result of damage to the rostral ipsilateral sympathetic trunk and fibers. Although it is a rare complication, Horner's syndrome can occur as a result of injury to the sympathetic chain during anterior cervical spine surgery. The sympathetic fibers course over the anterior surface of the longus coli muscle where they can be injured as part of the surgical approach or postoperatively as a result of hematoma formation. This complication may cause cosmetic and functional impairment that can be distressing to the patient. It has been reported that most cases improve or resolve spontaneously within 6 months. Unfortunately, the patient had residual Horner's Syndrome at 7 months follow-up.

CONCLUSIONS

We present a case of Horner's Syndrome, a rare complication of ACDF surgery in which the patient had residual impairment at 7 months. This case highlights this uncommon outcome and the possibility of persistence of symptoms, so patients can be appropriately educated.

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