

Chronic Neck and Neuropathic Pain Management after New Acute Intracerebral Hemorrhage: A Case Report



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INTRODUCTION

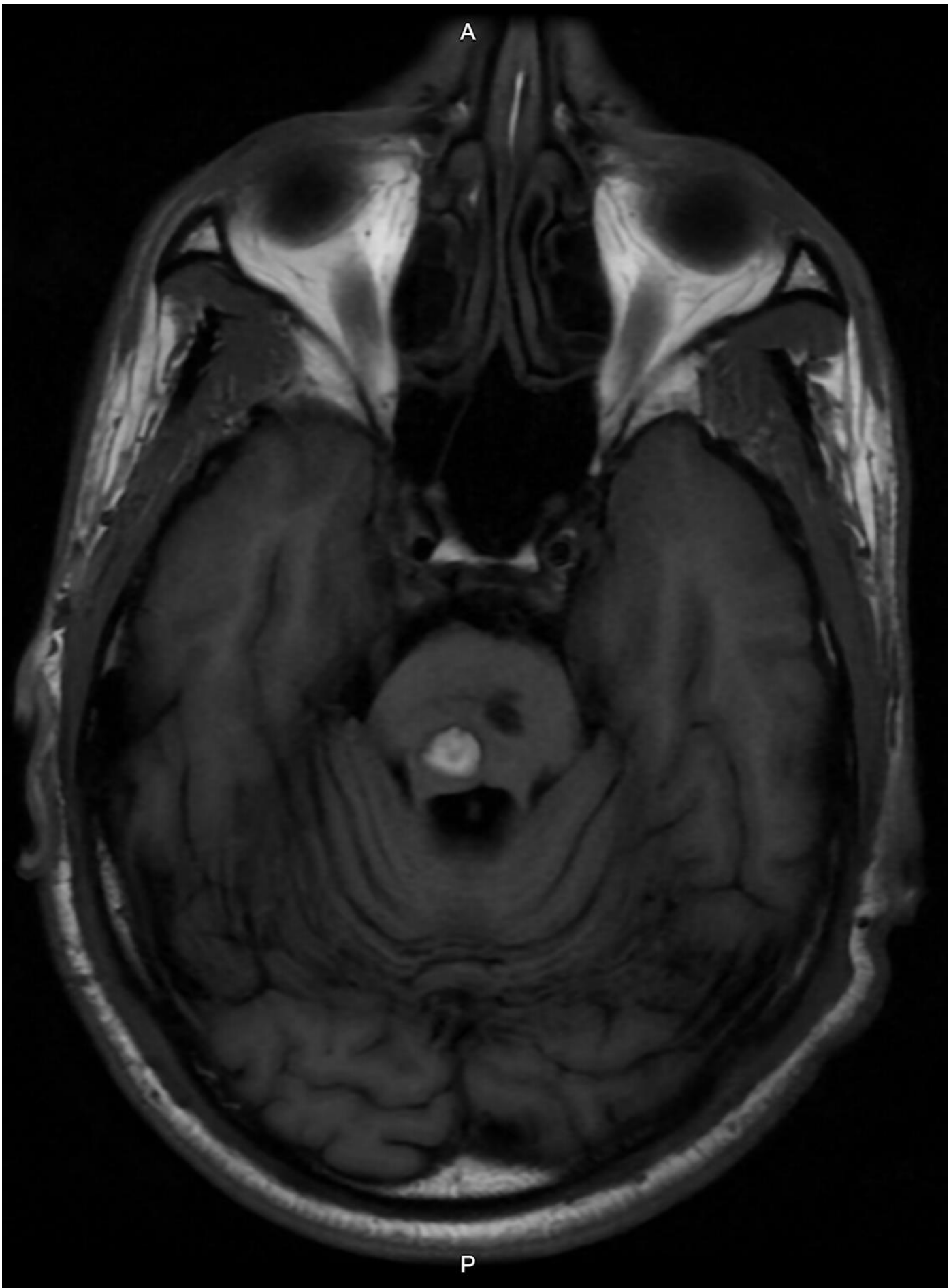
A 45 year old male with past medical history of hypertension, chronic kidney disease and chronic cervical and neuropathic pains after motor vehicle accident presented to the hospital with left sided weakness after sustaining a right pontine intracerebral hemorrhage.

PATIENT PRESENTATION

A 45 year old male with past medical history as above presented to the hospital with left sided weakness after sustaining a right pontine intracerebral hemorrhage (ICH). Patient also has a history of chronic bilateral lower extremity neuropathy and cervical spine pain after a motor vehicle accident and subsequent assault 2 years prior but was unable to undergo epidural steroid injection in the setting of uncontrolled hypertension. On presentation to inpatient rehabilitation, patient had a left gaze preference with 3/5 strength throughout the left side, and decreased sensation and worsening of his chronic cervical/lumbar and neuropathic pains. Patient required minimum assistance for transfers and ambulated only 3 feet.

MATERIALS/METHODS

As the case report is devoid of patient identifiable information, it is exempt from IRB review requirements as per SUNY Downstate Health Sciences University IRB-01 Policy.



FINDINGS:
Continued evolution of a late subacute pontine intraparenchymal hemorrhage now hypointenuating with decreased adjacent edema.

Moderate chronic white matter microvascular ischemic-type changes, greater than expected for age. There are chronic lacunar infarcts involving the thalami and pons. The ventricles are grossly stable in caliber.

No acute large territory infarct or acute intracranial hemorrhage.
No extra-axial collection or midline shift. No acute displaced calvarial fracture. The orbits are unremarkable. The visualized paranasal sinuses are clear. The mastoid air cells are clear.

IMPRESSION:
Evolving late subacute intraparenchymal hemorrhage in the pons now decreased in attenuation with decreased adjacent edema.

No acute large territory infarct or acute intracranial hemorrhage.

Moderate chronic white matter microvascular ischemic type change, greater than expected for age with several chronic lacunar infarcts.

CT HEAD / MRI C SPINE



Findings:

There is anatomic alignment of the cervical spine.
Cervical vertebrae and intervertebral discs are normal in signal intensity and height.

C2-3: Right uncovertebral hypertrophy and shallow disc osteophyte complex with no significant spinal canal or neural foraminal stenosis. No facet arthropathy.
C3-4: Shallow disc osteophyte complex with tiny central protrusion. No spinal canal or neural foraminal stenosis.
C4-5: Shallow disc osteophyte complex indenting the ventral thecal sac with mild facet hypertrophy. No spinal canal or neural foraminal stenosis.
C5-6: Uncovertebral hypertrophy and shallow broad-based disc osteophyte complex which is asymmetric to the left. No significant spinal canal stenosis. There is moderate left neural foraminal stenosis.
C6-7: Broad-based disc osteophyte complex effacing the ventral thecal sac with thickening of the ligamentum flavum and facet hypertrophy. Findings contribute to mild central canal stenosis with moderate bilateral neural foraminal stenosis.
C7-T1: No posterior disc abnormality. No facet arthropathy. No spinal canal stenosis or neural foraminal narrowing.

Cervical spinal cord is normal in size and signal intensity.
Multifocal punctate areas of susceptibility artifact in the cerebellum and cerebellar peduncles consistent with previously seen chronic microhemorrhages.
Partially visualized involving brainstem subacute pontine, seen to better advantage on prior brain MRI.
Visualized prevertebral soft tissues are normal.

IMPRESSION:
Impression:

1.Mild to moderate multilevel spondylotic changes of the cervical spine, worst at C6-7.
2.No high-grade central canal stenosis, spinal cord compression or edema.

REHABILITATION COURSE

Patient began a course of intensive inpatient physical therapy and occupational therapy. Patient was started on lidocaine patches, gabapentin and tramadol as needed for chronic cervical neck pain to better tolerate therapies with success. At time of discharge, left sided weakness improved to almost 4/5 throughout and was supervision to modified independent with transfers, ambulating 60 feet with 4 wheeled walker with pain well controlled. He was discharged home with home based therapy and outpatient pain management follow up.

CONCLUSION

This case was especially challenging managing a patient's chronic cervical and neuropathic pains after new right sided pontine ICH which was limiting his function and quality of life. In patients with pre-existing chronic pain syndrome, acute hemorrhages can exacerbate pain and severely impair functional require. An individualized, team based approach with multimodal pain management strategies is essential for improved participation in therapy to optimize neurologic recovery, and augment quality of life and function.

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