

CASE PRESENTATION

A 46-year-old female with PMH of thyroid cancer s/p thyroidectomy reported sudden onset of generalized body weakness 3 months prior, which resolved on the right side after 1 month but persisted on the left with decreased interest in activities and energy level. Patient denied history of headache, sensory loss or visual impairment. Physical exam was noticeable for left arm pronator drift, left arm and leg weakness (proximal >distal) MMT 4+/5, decreased arm swing and left leg swing phase with genu recurvatum on gait evaluation. CT and MRI brain revealed a calcified mass in the R basal ganglia with extension into the corona radiata and midbrain with associated midline shift. Stereotactic needle biopsy was suggestive of high grade glioma. She was subsequently admitted to inpatient rehabilitation for hemiparesis and further oncologic management.

IMAGES

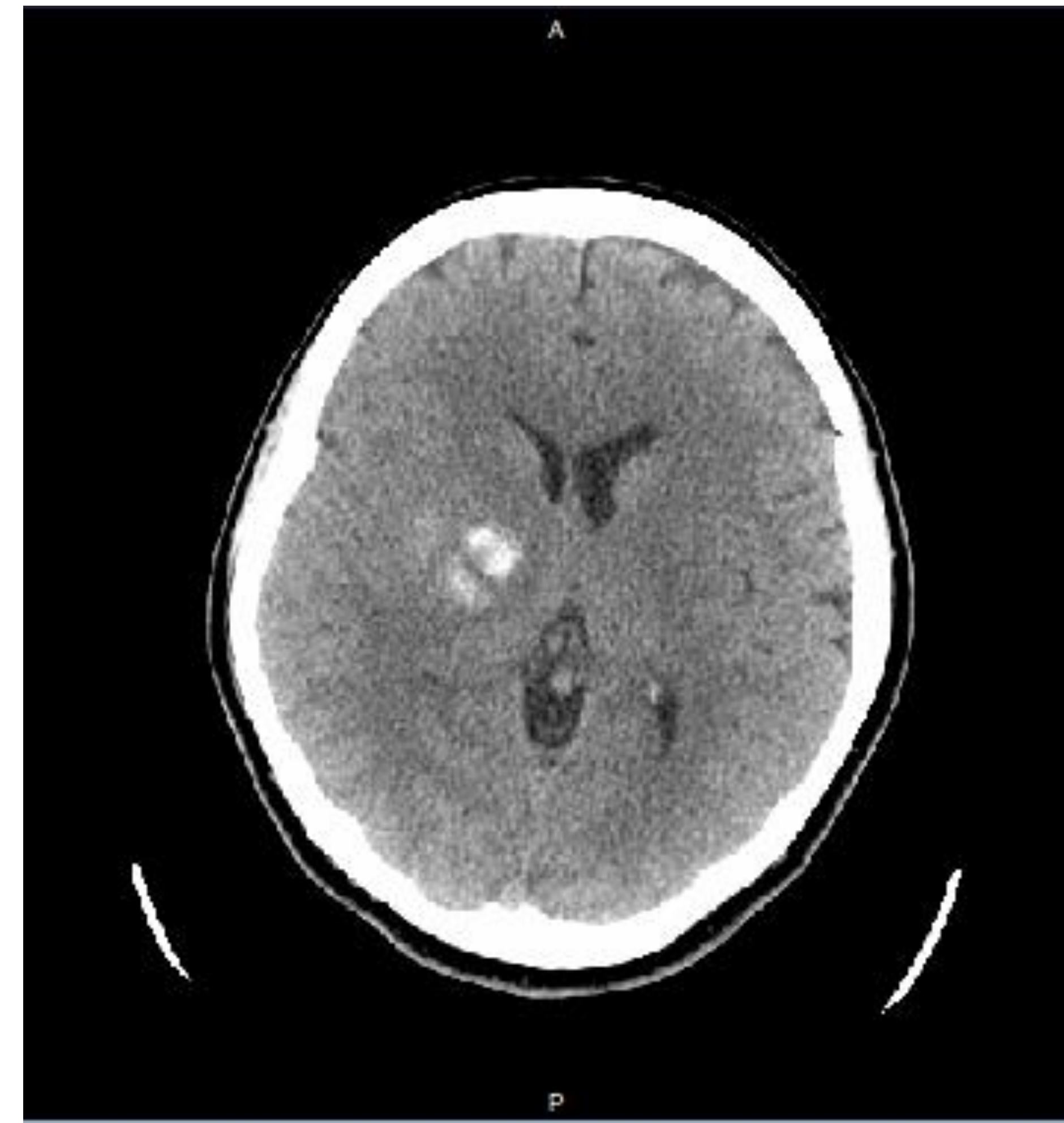


Image 1. A partially calcified mass is centered on the right basal ganglia region, with superior extension into the right corona radiata and probable inferior extension into the right midbrain on non-contrast CT

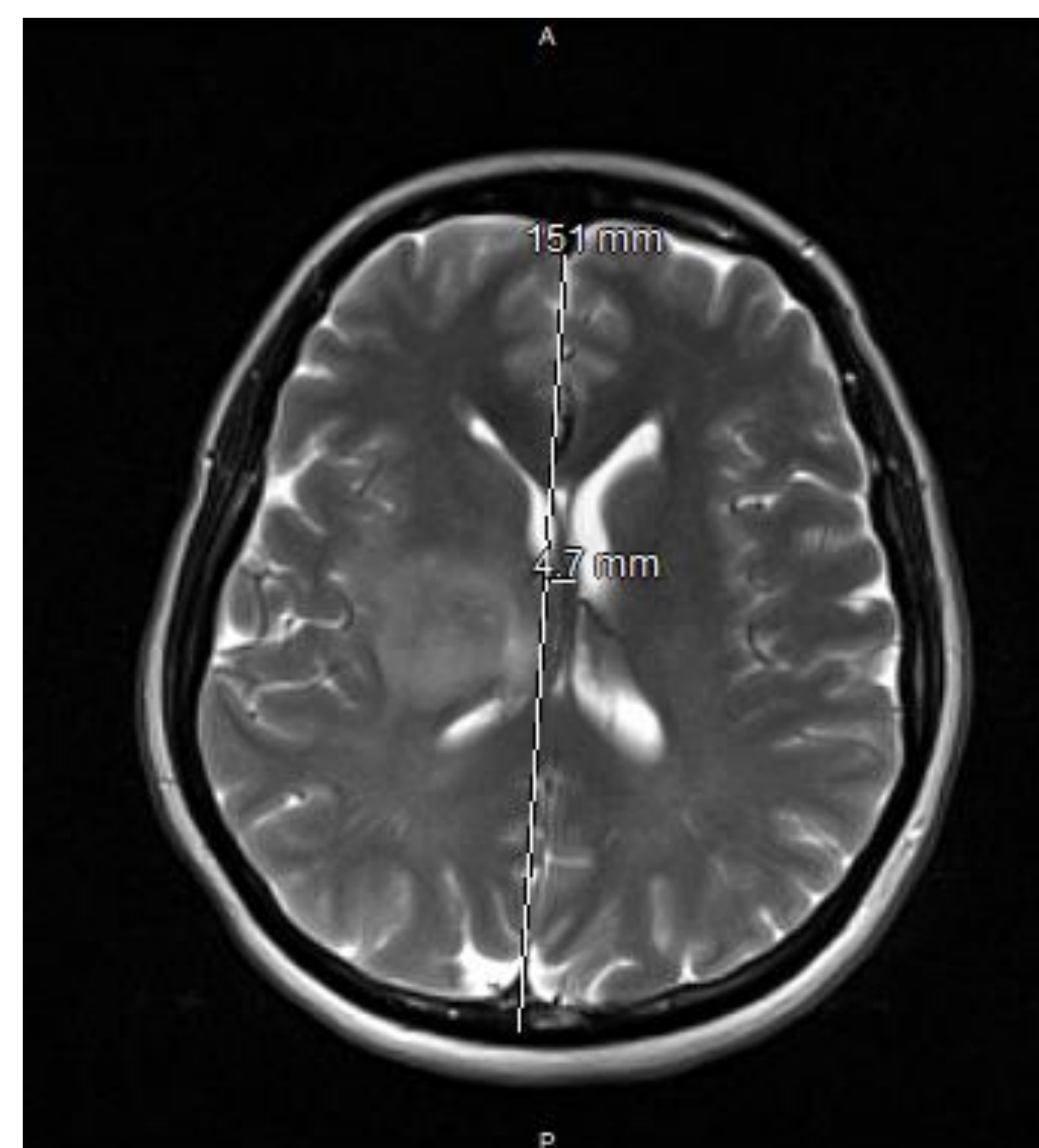


Image 2. Brain MRI revealing abnormal enhancement and infiltrative expansile T2 hyperintensity involving the right basal ganglia with mass effect 5mm leftward midline shift.

DISCUSSION

Approximately 8% of cancer survivors are diagnosed with a second type of cancer. Though primary brain tumors only represent 2% of all cancer types, they account for a high rate of morbidity and mortality. Neurologic deficits vary depending on the location of the lesion, size, and invasive nature. Motor deficits may impair quality of life, functional independence, and gait which may result in falls and injuries. The location of the lesion in the right basal ganglia extending to the corona radiata explains the left hemiparesis and gait impairment. Apathy, abulia, and impaired cognition are also explained by basal ganglia compromise. Inpatient rehabilitation has been shown to improve motor and cognitive function, as well as quality of life in malignant primary brain tumor patients.

CONCLUSIONS

Hemiparesis and gait impairment of insidious onset in a patient with history of malignancy requires a thorough work up. Patients with primary brain tumors and motor deficits benefit from inpatient rehabilitation.