



Case Presentation

History of present illness:

A 55-year-old right-handed female with no past medical history and a supportive family, presented with acute right sided weakness (MMT 1/5) and impaired sensation immediately post elective minor surgery of left foot.

Clinical course:

Per stroke protocol, t-PA was given 45 minutes after symptom onset (CT head negative for bleed/large infarct) resulting in no improvement. MRI brain revealed no stroke. Aspirin was started. No psychiatric diagnosis per Psychiatry consult.

Rehabilitation course:

The weakness was thought to be secondary to functional symptomatic neurological disorder (FSND). Patient received acute inpatient rehabilitation (AIR).

Discharge functional status:

When discharged from AIR after 7 days, strength was 5/5 and sensation was normal. Patient was able to perform bed mobility and transfers with independence and ambulated using rolling walker with supervision. At 1 month follow up, patient's examination was essentially normal except residual decreased sensation in right upper extremity.

Labs and imaging

Figure 1. CT Head without evidence of focal lesions or abnormalities.

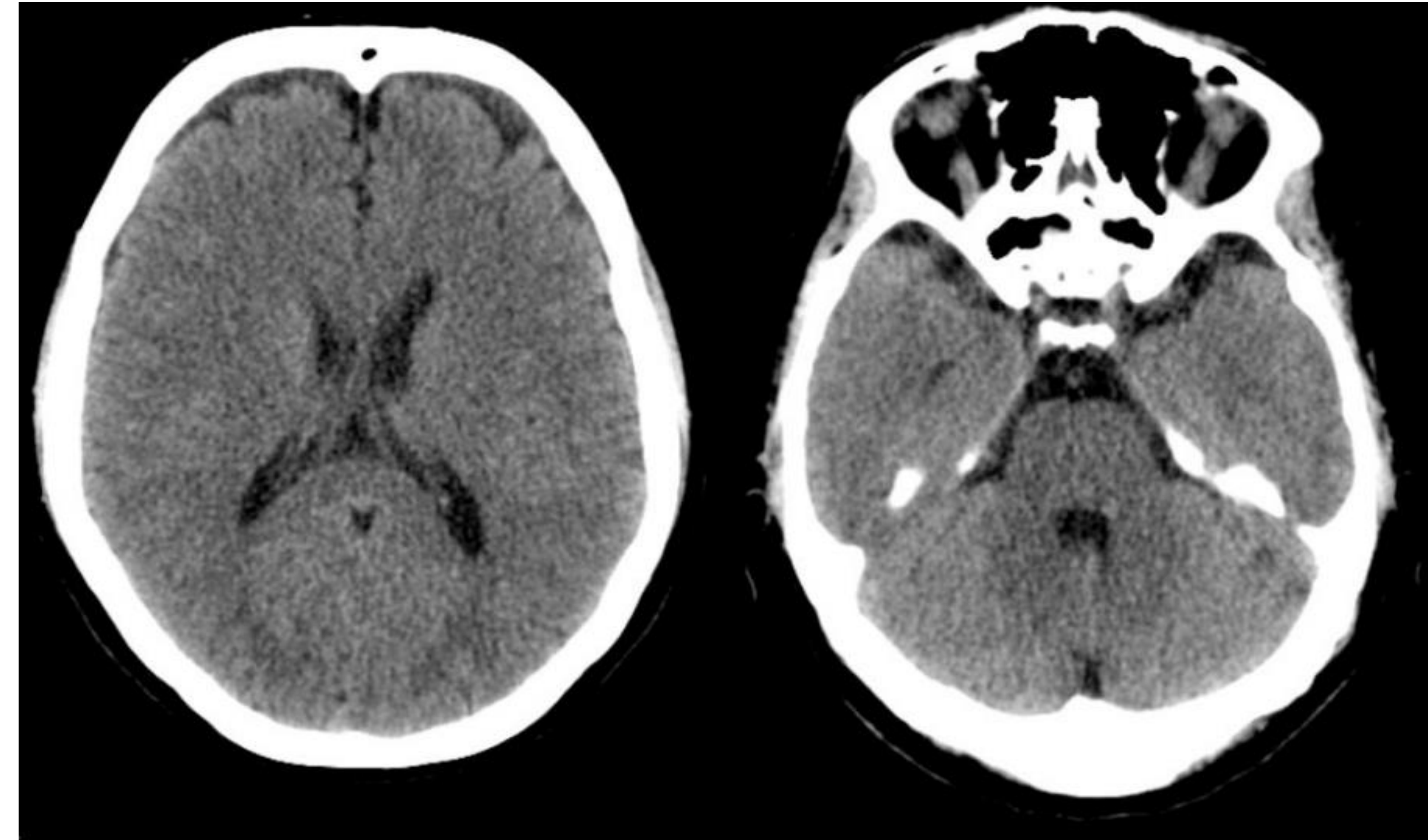
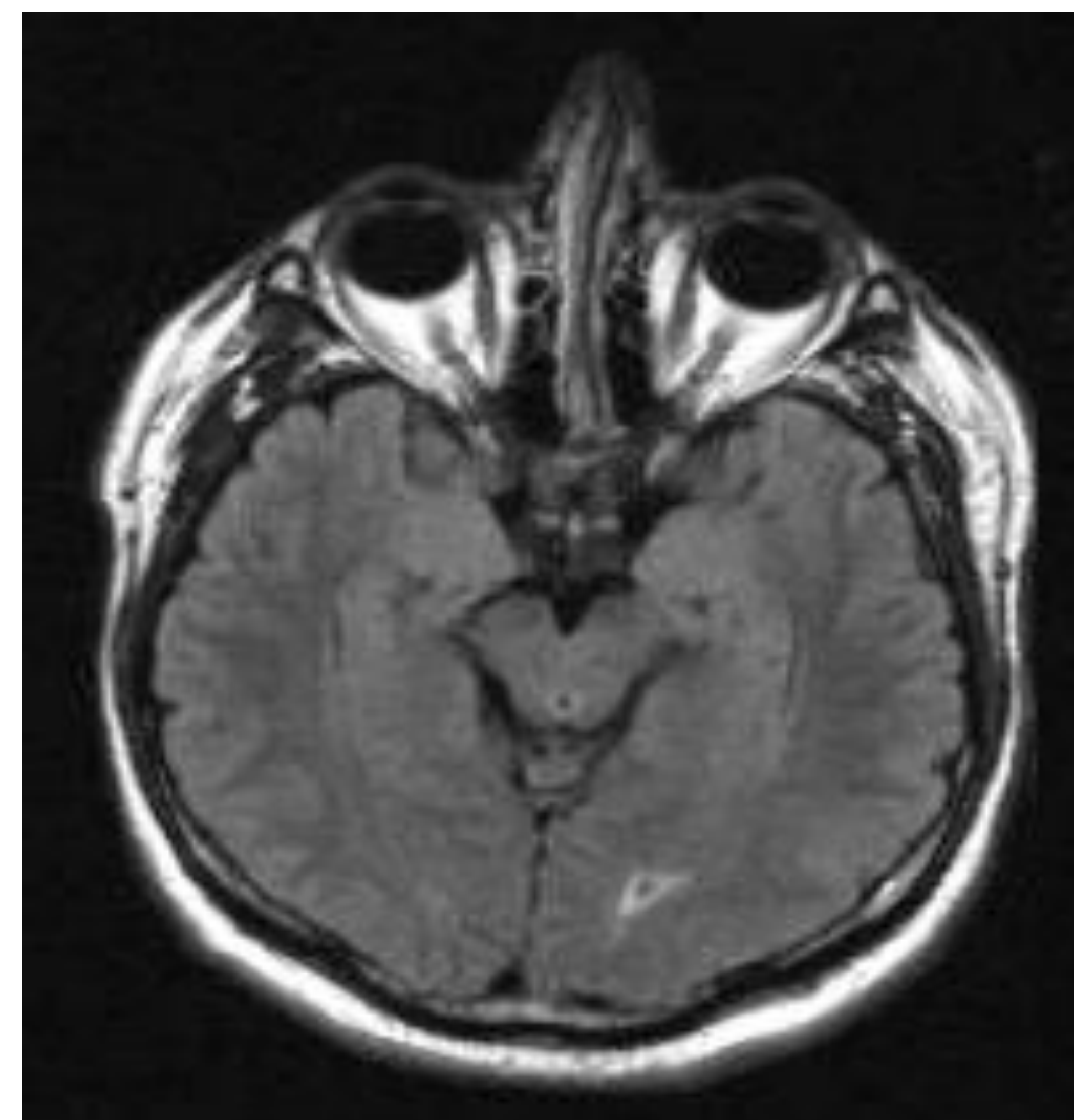


Figure 2. MRI of the brain shows age-appropriate cortical atrophy with no acute intracranial findings.



Discussion

In-hospital strokes generally portend poor prognosis. A meta-analysis study of 79 patients (mean age 50 years, 62% females) with admitting presentation of acute motor functional neurological disorder who were given t-PA for presumed stroke showed favorable outcome at the time of discharge and follow-up (1).

Another study of 60 patients diagnosed with unilateral functional weakness or sensory loss continued to have symptoms through 12-year follow-up (2).

Conversely, patients with hemiparesis secondary to FSND often do very well on IRF. Unlike in our case, patients with FSND have often been victims of abuse and/or don't have good social support networks.

Conclusions

Patients with hemiparesis secondary to FSND, regardless of inciting event or demographics, can improve to normal function with standard IRF.

Bibliography

1. Simhan S, Thijs V, Mancuso S, Tsivgoulis G, Katsanos A, Alexandrov AV, Kanaan RA. The outcome of acute functional neurological disorder: a meta-analysis of stroke-mimic presentations. *J Neurol*. 2020 May;267(5):1353-1357. doi: 10.1007/s00415-020-09709-3. Epub 2020 Jan 22. PMID: 31970491.
2. Stone J, Sharpe M, Rothwell PM, Warlow CP. The 12 year prognosis of unilateral functional weakness and sensory disturbance. *J Neurol Neurosurg Psychiatry*. 2003 May;74(5):591-6. doi: 10.1136/jnnp.74.5.591. PMID: 12700300; PMCID: PMC1738446.