Objective:
To report a case of acute ischemic stroke in a patient admitted to our hospital with neuropathy, organomegaly, endocrinopathy, monoclonal gammopathy and skin abnormalities (POEMS) syndrome.

Background:
POEMS syndrome is a rare paraneoplastic disease resulting from a clonal plasma cell disorder. The pathophysiology is unclear but thought to be related to overproduction of vascular endothelial growth factor (VEGF). The five year risk of acute ischemic stroke is approximately 13.4% and associated with a poorer overall outcome.

Design/Methods:
Case report including laboratory and radiographical results.
A 39 year old male was admitted to the hospital for work up of POEMS syndrome after outside EMG revealed mixed axonal demyelinating polyneuropathy in the setting of recent radiation of a left iliac plasmacytoma. On additional work up he was found to have papilledema, elevated VEGF, and an IgA lambda monoclonal gammopathy. He was started on a five day course of methylprednisolone for his polyneuropathy and on day two had acute onset dysarthria, aphasia and right arm weakness that resolved after forty five minutes. On further history the patient reported similar episodes occurring two weeks prior to admission.

Results:
CT angiography revealed a left internal carotid artery thrombus and MRI brain showed multiple infarcts in the left middle cerebral artery distribution. The remainder of the stroke work up was unrevealing. Aspirin and statin were initiated. Two months after discharge patient continues to have residual weakness from his polyneuropathy but no further strokes. Unfortunately VEGF levels have remained elevated and the patient is scheduled to undergo stem cell transplant

Conclusions:
POEMS syndrome is a rare disease and acute ischemic stroke is associated with poorer overall outcome. When treating a patient with POEMS syndrome, we advise a low threshold to perform or repeat neurovascular imaging with any new neurologic symptoms given the reported frequency of acute ischemic stroke.