Non-Traumatic Myelopathy and Cauda Equina Syndrome Protocol

**Signs / Sx suggestive**
- Bilateral LE Weakness
- Non-radiculer or multiple root sensory alterations
- Peroneal numbness
- Sphincter dysfunction (e.g., retention, incontinence, decrease rectal tone)
- Reflex abnormalities (upper OR lower motor neuron signs)
- Autonomic dysfunction

**Stat MRI (non-contrast screening examination)**
(if MRI absolutely contraindicated, STAT non-contrasted CT and then consider CT myelogram if negative)

- Compressive lesion e.g., SEA, HNP → Consult neurosurgery
- Non-compressive lesion e.g., transverse myelitis
- Negative myelogram → Consult neurology
**Indications for Emergent Spinal MRI**
- Acute onset non-traumatic myelopathy
- Traumatic myelopathy after negative CT
- Cauda equina syndrome
- Spinal epidural abscess
- Acute radiculopathy with functional deficit

**MRI without** gadolinium will identify the vast majority of pathology and should be the initial screening examination. Gadolinium may be necessary when specifically looking for:
- Primary spinal / intradural tumors
- Drop metastases

**MRI contraindications:**
- Implantable pacemaker
- Implantable neural stimulator
- Ocular metal FB

All attempts should be made to localize the level of neurologic dysfunction for MRI. If the level can not be reliably established by neurologic examination, then a “large field of view survey” can be performed by MRI to attempt localization.

This guideline was ratified by the emergency department faculty at Maine Medical Center in January 2012. It reflects our expert opinion and is not necessarily applicable to all institutions. It is intended to be a reference for clinicians caring for patients and is not intended to replace providers’ clinical judgment.

Produced by: Andrew Perron, M.D.
References


References Continued


