

Acute brainstem syndrome

Immune-mediated

- 1) Neuromyelitis optica spectrum disorders (NMOSD)
- 2) multiple sclerosis
- 3) Bickerstaff brainstem encephalitis
- 4) myelin oligodendrocyte glycoprotein associated disease

inflammatory

- 1) chronic lymphocytic inflammation with pontine perivascular enhancement responsive to steroids (CLIPPERS)
- 2) neurosarcoidosis
- 3) neuro SLE
- 4) acute disseminated encephalomyelitis (ADEM)
- 5) neuro Sjogren's
- 6) neuro Behcet's

infectious

- 1) rhombencephalitis (Listeria monocytogenes, Enterovirus 71, Herpes simplex 1&2)
- 2) human immunodeficiency virus encephalopathy
- 3) progressive multifocal leukoencephalopathy (JC virus)

metabolic

- 1) Wilson's disease
- 2) Leigh's syndrome
- 3) central pontine myelinolysis/osmotic demyelination syndrome

vascular

- 1) Vertebrobasilar ischemic syndrome
- 2) posterior reversible encephalopathy syndrome (PRES)

Neoplasm/paraneoplastic

- 1) brainstem glioma
- 2) Diffuse large B cell lymphoma
- 3) anti Hu, Ma2, Ri, KLH, LUZ P4

toxic

- 1) Heroin
- 2) cyclosporin A encephalopathy