Case Study – Immune Mediated Neuropathies

• History:
  o 22 y/o woman with seven month history of “knees giving out”
  o Very unsteady walking
  o Four month history of numbness and tingling in feet, but not arms

• Examination:
  o Cranial nerves: facial weakness
  o Motor testing: neck flexor 4; neck extensor 5-; proximal upper limbs –4; distal 5; proximal lower limbs –4; distal 4
  o Sensory: vibration and proprioception reduced; touch decreased to mid calf; pin and temperature normal
  o Areflexic throughout
  o Gait unsteady

• Electrodiagnostic studies:
  o Motor:
    - Median shows prolonged distal latency, normal amplitude and borderline conduction velocity with a prolonged F-wave
    - Ulnar shows prolonged distal latency and prolonged F-wave
    - Peroneal shows slow conduction and low amplitude with absent F-wave
    - Tibial shows normal conduction velocity; low amplitude and absent F-wave
  o Sensory:
    - Median and ulnar responses absent
    - Sural response normal

• EMG
  o Active denervation in tibialis anterior

• Labs:
  o CSF protein – 336 mg/dl, WBC <5
  o SPEP: normal

• Treatment course:
  o Treated with Prednisone 100mg/day for 2 wks, then 100mg/qod
  o 1 month: no change
  o 6 weeks: sensory symptoms resolved, gait improved
  o 2 months: marked improvement of strength, touch normal, vibration and proprioception still decreased, knee reflexes returned