HPI

• 50 year old male twisted his R ankle, 3 weeks prior, with subsequent pain and swelling
• When the swelling resolved, continued to have burning pain and parasthesias in the foot
• Symptoms began to migrate up the leg over the next few days
• He had no weakness
HPI

• A few days later, he noticed that his LEFT leg was weak
• He started to use a cane
• The weakness progressed to total paresis and he needed to use crutches
• The right leg was strong but now felt numb with constant burning and tingling
• After 3 weeks of gradual worsening, pt came to the ER for evaluation
PMH

- HIV positive for 16 years
- AIDS for 1 year
- Off HAART x6 months
- Off Prophylatic Meds x2 months
- Last known CD4 was 15, 6 months ago
- No other medical problems
- No reported complications from HIV/AIDS
History

• Allergies
  - NKDA

• Meds
  - None
  - Stopped Bactrim and Fluconazole
  - Non-compliant with multiple HAART regimens in the past

• SH
  - Single
  - Was taking care of ill mother
  - No EtoH
  - No Tobacco
  - No Hx Drug Use

• FH
  - Noncontributory
Physical Exam

- Vitals: Afebrile, VSS
- GEN: Thin, NAD
- HEENT: Extensive Thrush
- CV: RRR
- Lungs: CTAB
- Abdomen: NTND.
- Ext: No C/C/E. No Rashes
- MS: AAO, Intact
- CN: II-XII Intact, fundi unremarkable
- Motor: 0/5 RLE. 5/5 throughout. No fascic.
- Sensory: Dec vibration on RLE, Dec temp and PP on LLE, hemibody to T3, with allodynia
- Coord: FTN, FFM, RAM
- Reflexes: 2+ UE, 2+ LLE, 2 RLE, 0 ankles b/l. upgoing toe on R.
ER workup

- Electrolytes wnl
- WBC 3.3, Hgb 12, Hct 34, plts 208, L 7%, N 81%
- CD4 4, CD8 42
- ALC 0.2, ANC 2.7

- UA: unremarkable
- RPR neg
- CXR: clear
Additional History

- On ROS, pt noted a rash from his back around to above his right nipple 3 months ago that was painful, and resolved 1 month ago, shortly before symptoms began. It may have been shingles.
Further Workup

- Blood Cx neg, AFB cx neg, CMV PCR neg, Cocci Ab blood neg, Cocci Ag blood neg,

- CSF studies WBC 0, RBC 2, Gluc 54, Prot 37, GS neg, India Ink neg, Bacterial and fungal cx neg, VDRL neg

- CSF PCR: EBV, CMV, WNV, HSV1 neg

- VZV and HSV2 POSITIVE
Hospital Course

- Patient was started on acyclovir given convincing story of VZV as causative agent and improved overnight to 1/5 proximally and 2/5 distally.
- Bactrim and Fluconazole restarted, neurontin for pain.
- ID saw pt and wanted to cover CMV and changed to gancyclovir. Pt continued to improve to 3/5, restarted on HAART and sent to rehab.
Herpes Zoster

- reactivation of dormant VZV
- Involves the dorsal root ganglion
- Affects 1-5/1000/year, greater in malignancy and immuno-compromised
- More common mid-late life

- Rare involvement of motor roots or CNS involvement
- CNS can be ADEM or direct invasion
- Includes cerebellar ataxia, encephalitis, myelitis, meningitis
- Can cause a large vessel arteritis/vasculitis
Brown-Séquard Syndrome

- Cord Hemisection
- Ipsilateral paresis and loss of vibratory and joint position sense
- Contralateral loss of pain and temperature

Figure 2.27: Brown-Séquard Syndrome (Unilateral hemi-cord lesion).
Brown-Séquard Syndrome

- Frequency unknown
- Estimated about 11k/year in the US
- 247,000 SCI/year
- Can have traumatic and non-traumatic causes
- Most common cause SCI, so modal demographic young white male

- Traumatic:
  - Gunshot or Knife wound
  - Unilateral facet fracture
  - Unilateral facet dislocation

- Nontraumatic:
  - Tumor (primary or metastatic)
  - Multiple Sclerosis
  - Epidural Hematoma
  - Transverse myelitis
  - Radiation
  - Tuberculosis
Workup and Treatment

- MRI suspected level
- Additional workup and treatment based on likely cause from preliminary workup
  - i.e. infectious, MS, trauma...
- Surgery as needed, as most likely source is trauma, and most likely non-traumatic is tumor
- Steroids for acute SCI
Prognosis

• Recovery in SCI is proportional to completeness of the lesion, so brown-Sequard pts tend to do well.
• In the Brown-Sequard subgroup, there is significant motor recovery, usually in 1-2 months, with steady recovery to 6 months and some recovery out to 2 years.
Charles-Édouard Brown-Séquard

- MD in France
- Faculty Medical College of VA
- National Hospital for the Paralyzed and Epileptic in London
- Professor at Harvard
- Professor at Ecole De Medecine in Paris
- Practiced In NYC
- Professor of College de France
- Published over 500 papers
- Elected to the French Academy of Sciences
Biography

• Born in 1817
• Born in Mauritius to an Irish-American sea captain and a French Mother
• Often worked 20h days
• Tried to be a writer and then tried medical school once manuscripts were rejected
• Medical school thesis on hyporeflexia following cord section, followed by hyperreflexia (in frogs)
Biography

• Did significant work in endocrinology, showing that removal of the adrenals was fatal
• 1889 wrote paper, brown-sequard elixir, saying he rejuvenated himself with injections of testicular extract and seminal fluid from dogs and guinea pigs.
• He could run up stairs and his urine stream was “25% longer”
• 12,000 physicians began using his formula, most derided him
Charles-Édouard Brown-Séquard

- Brown-Séquard gave inspiration to Robert Louis Stevenson for the character of Dr Jekyll and Mr Hyde, while they were neighbors in Cavendish Square, London.
This concludes my presentation. Are there any questions?

How do I get the boredom out of my head?!!!

The funny thing is that I'll list this on my annual accomplishments.

Air! I need air!!!