Neuromyelitis Optica Spectrum Disorder in Active Duty Service Members

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To characterize patients with neuromyelitis optica spectrum disorder (NMOSD) in the Department of Defense (DoD) population.

Results

- Identified 131 unique patients within the DoD system with an ICD code documented in the medical record at least once
- Of these patients, 39 were confirmed as service members; the remainder were dependent beneficiaries
- 17 met 2015 diagnostic criteria for NMOSD
  - Patients were categorized as: NMOSD with documented AQP-IgG seropositivity: 15
  - Female: 9
  - Male: 8
  - African American: 6
  - Asian: 1
  - Other: 2
  - Unknown: 1
  - Average age of onset: 39.3
  - Range of ranks from junior enlisted (E3) to officers (O4)
  - DoD follow up ranged from 6 to 168 months
  - Average modified Rankin scale (mRS) at final follow up: 2
- Of the 17 patients meeting diagnostic criteria for NMOSD:
  - Ethnicity: African American: 6
  - Caucasian: 6
  - Asian: 1
  - Hispanic/Latino: 1
  - Other: 2
  - Unkown: 1
  - Average age of onset: 39.3
  - Range of ranks from junior enlisted (E3) to officers (O4)
  - DoD follow up ranged from 6 to 168 months
  - Average modified Rankin scale (mRS) at final follow up: 2
- Of the 22 patients not meeting diagnostic criteria diagnoses included:
  - Demyelinating disease/ multiple sclerosis (7), isolated myelitis (4), isolated optic neuritis (3), mixed connective tissue disorder (1), insufficient data (7)

Design and Methods

- Approved U of Utah/VA IRB # 90978
- Comprehensive query of patient records in the DoD for relevant diagnostic codes (ICD-9 341.0 and ICD-10 G36.0) between Jan 1 2010 and August 1, 2017
- Review of patient records via Joint Legacy Viewer, AHLTA, and Essentris, the DoD electronic medical record

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References


Conclusions

- This is a first-ever characterization NMOSD in the DoD population.
- Demographics and clinical characteristics agree with prior reports, with the exception of sex ratio, which may reflect a unique influence of this population.
- The study is limited by the time range (2010–2017) of analysis, and will benefit from further evaluation of additional DoD cases prior to 2010.