Multiple Sclerosis in the African-American Population

Mitzi Joi Williams, MD
MS Center of Atlanta
Atlanta, GA
Disclosures

Consultant/Advisory Board: Biogen-Idec, TEVA- Neuroscience, Mallinckrodt Pharmaceuticals, Novartis

Speaker’s Bureau: Biogen-Idec, TEVA- Neuroscience, EMD Serrono, Mallinckrodt Pharmaceuticals, Novartis, Accorda
Demyelination
Common Presenting Symptoms

- Optic Neuritis
- Double Vision
- Muscle Weakness
- Fatigue
- Impaired Coordination
- Abnormal Sensation
- Walking Difficulties
- Dizziness
- Bowel/Bladder Dysfunction
- Cognitive Dysfunction
Epidemiology

- MS is most common in people of Northern European Ancestry
- Incidence Ranges from 6-17% in AA
- There is no accurate database to determine true prevalence
- Prevalence in African-Americans (AA) is lower than Caucasians, but higher than Black African populations
MS in Black Africans

- 1st well documented case in South Africa was described in 1979
- Case series of 12 patients in South African and Zimbabwe published in 1994
- Higher prevalence of optico-spinal disease
- Optic neuritis is more often bilateral with poor recovery after the initial episode
“Clinical Characteristics of African Americans vs Caucasian Americans with Multiple Sclerosis”
Cree et al Neurology 2004

- More often affects the optic nerve and spinal cord
- Severe Optic Nerve Impairment (also more often bilateral)
- Shorter time to walking disability
- *Earlier time to treatment initiation*
"Increased Tissue Damage and lesion volumes in African Americans with MS"
Weinstock-Guttmann et al Neurology, January 2010

- T2 lesion volume increased by 31% in AA vs CA
- T1 lesion volume increase by 101% in AA vs CA
- MTR also decreased in AA vs CA
  - sign of myelin loss and axonal damage
  - possible impaired capacity for re-myelination
Clinical Course of Relapsing-Remitting Multiple Sclerosis (RRMS) in Non-White MS Patients

Abstract submitted to CMSC 2015 Meeting
Access to and utilization of neurologists by people with multiple sclerosis”
Minden et al Neurology 2008

Characteristics of patients less likely to see neurologists:
- Lack of health insurance
- Lower Income
- African American
- Living in rural areas
- Illness longer than 15 yrs
Multiple Sclerosis in US Minority Populations: Clinical Practice Insights
Omar Khan, MD; Mitzi J Williams, MD; Lilyana Amezcua, MD; Adil Javed, MD, PhD; Kristin E. Larsen, PhD; Jennifer M. Smrtka, NP

- Overview of Clinical and Genetic Influences on Disease Progression in Minority Patients with MS
- Challenges to Providing Optimal Treatment for Minority Patients with MS
- Clinical Practice Insights for Improved Management of Minority Patients with MS
Unmet Needs

- Accurate databases to determine the true prevalence of MS in the US including information on ethnic minorities
- Prospective trials looking at the disease course
- Studies examining treatment efficacy in minority populations
- Increased recruitment of ethnic minorities in Clinical Trials
- Improved Access to MS therapies
Ongoing Projects

- Developing a Registry Looking at Risk Factors in AA population
- Prospective studies looking at response to disease modifying therapies in AA patients vs. Caucasians
- Abstract submitted to examine the natural history of placebo groups in large clinical trials
- Advisory Board involvement to continue to address unmet needs
There is a growing body of research over the past decade that points to differences in disease activity and phenotypes in African Americans with MS.

The true incidence of the disease in this population is unknown, but it is not likely as low as reported from studies and surveys done in 1970’s.

Poor recruitment in research trials makes it difficult to generalize results to populations with different disease characteristics.