Increased Relapse Frequency in Females with Pediatric Onset Multiple Sclerosis

Yolanda C. Harris, MSN, CPNP-AC, MSCN, Sarah Dowdy, MPH, & Jayne Ness, MD, PhD
Center for Pediatric Onset Demyelinating Disease, University of Alabama at Birmingham

Background

- Pediatric onset multiple sclerosis (POMS) has been increasingly recognized over the last fifteen years.
- The Center for Pediatric Onset Demyelinating Disease (CPODD) at the University of Alabama at Birmingham was established in 2006 to provide initial, follow-up and consultative care children and adolescents with POMS and related demyelinating disorders.
- A multi-disciplinary team of experts includes a pediatric neurologist expert, an adult neurology expert, a multiple sclerosis certified advance practice nurse, a neuropsychologist and a child psychiatrist.
- Referrals are made to the pediatric rehabilitation, urology, occupational therapy, physical therapy, speech therapy and sleep disorders clinic when necessary.

Methods

- The electronic medical record of 359 patients that were seen at CPODD were systematically reviewed with respect to diagnosis using the 2012 International Pediatric MS Study Group diagnostic criteria.
- 114 (N=31%) developed POMS by definition. Analysis was then made with respect to age of onset, sex, ethnicity, initial symptoms, and number of exacerbations within the first two years of initial presentation as well as disease modifying therapy (DMT).

Results

- POMS in the southern US cohort was predominantly female and > age 11 at symptom onset.
- Similar to adults, the typical presentation is CIS.
- > 75% of the patients experience ≤ 1 relapse within the first two years after symptom onset.
- Females have a higher number of relapses than males, however data is statistically insignificant (chi square p >.05; p=.07).
- Long term follow-up for all patients is needed to report significant trends in this small population.

Objective

To characterize POMS patients evaluated at CPODD from January 1, 2006 to December 31, 2013.

<table>
<thead>
<tr>
<th>Diagnosis at Initial Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIS=Radiologically Isolated Syndrome PD=Paroxysmal dysarthria</td>
</tr>
</tbody>
</table>

POMS Patients By Gender

<table>
<thead>
<tr>
<th>Age at Symptom Onset (Mean Age = 13.3 ± 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤10 years of age</td>
</tr>
<tr>
<td>11-14 years of age</td>
</tr>
<tr>
<td>15-18 years of age</td>
</tr>
</tbody>
</table>