Background and Objectives

- Several studies have shown a relationship between internal jugular vein (IJV) drainage abnorma-
  lities and specific neurological diseases of undetermined etiology such as transient global amne-
  sia, memory impairment, and posttraumatic stress disorder.

Methods

- The study started in April 2009 and is still enrolling controls, as well as patients with MS, clinically isolated syndrome (CIS) and other neurologic diseases.

Disclosures

- Sources of funding and support:
  - This research was supported in part by internal resources of the Buffalo Neuroimaging Analysis Center and Baird MS Center, The Jacobs Neurological Institute, Department of Pharmaceutical Sciences, State University of New York, Buffalo, NY, USA; Department of Pharmacology, University at Buffalo, State University of New York, Buffalo, NY, USA.

- Disclosures of potential conflict of interest:
  - Kesrimal Dolic, Karon Marr, Veselka Valnarov, Ellen Carl, Jesper Hagemeier, Christina Brooks, Colleen Kilanowski, David Hojnacki, Murall Ramanathan, Robert Zivadinov.

Table 1. Demographic and clinical characteristics in study subjects.

<table>
<thead>
<tr>
<th>CCSVI criteria</th>
<th>Total (n=252)</th>
<th>Females (n=144)</th>
<th>Males (n=108)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VII Criteria 1</td>
<td>36 (14.3)</td>
<td>18 (12.5)</td>
<td>18 (16.7)</td>
</tr>
<tr>
<td>VII Criteria 2</td>
<td>51 (20.2)</td>
<td>21 (15)</td>
<td>30 (27.8)</td>
</tr>
<tr>
<td>VII Criteria 3</td>
<td>99 (39.3)</td>
<td>51 (35.4)</td>
<td>48 (44.4)</td>
</tr>
<tr>
<td>VII Criteria 4</td>
<td>11 (4.3)</td>
<td>7 (4.8)</td>
<td>4 (3.7)</td>
</tr>
<tr>
<td>VII Criteria 5</td>
<td>21 (8.3)</td>
<td>7 (5)</td>
<td>14 (12.9)</td>
</tr>
</tbody>
</table>

* represents a trend for significance (p<0.05); ** represents significance (p<0.01)

Legend: COPD – chronic obstructive pulmonary disease

The various environmental factor frequencies were calculated on the total population of 252 subjects. Data for missing cases were conservatively categorized as negative.

- Race/ethnicity were determined according to US Census Bureau definitions.

- This study was approved by the local Health Sciences Institutional Review Board (HSIRB #2009-01105A) and written informed consent was obtained from all subjects.

- Logistic regression analysis was used to test which risk/protective factors were associated with the CCSVI diagnosis. The odds-ratio (OR) and a 95% confidence interval (CI) were calculated.

- To correct for multiple comparisons, a nominal p-value of <0.01 was considered significant using two-tailed tests.

References