Baseline Characteristics of Patients Attending the www.TheAlzCenter.org Memory Clinic Serving the South Shore of Boston

Corresponding Author:
Dr. Anil K Nair,
Chief of Neurology, Director Alzheimer's Center, Quincy Medical Center, Alzheimer's Disease Center, 114 Whitwell St, 02169 - United States of America

Submitting Author:
Mr. Anil K Nair,
Chief of Neurology, Director Alzheimer's Center, Quincy Medical Center, Alzheimer's Disease Center, 114 Whitwell St, 02169 - United States of America

Article ID: WMC003085
Article Type: Research articles
Submitted on: 29-Feb-2012, 04:05:38 PM GMT   Published on: 01-Mar-2012, 10:20:43 AM GMT
Article URL: http://www.webmedcentral.com/article_view/3085
Subject Categories:NEUROLOGY
Keywords: Alzheimer's disease, South Shore, www.TheAlzCenter.org, Memory, Dementia, MCI

How to cite the article: Chandrashekar S, Kan K, Chan N, Patel R, Nadler D, Drake L E, Nair A K. Baseline Characteristics of Patients Attending the www.TheAlzCenter.org Memory Clinic Serving the South Shore of Boston. WebmedCentral NEUROLOGY 2012;3(3):WMC003085

Copyright: This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
Baseline Characteristics of Patients Attending the www.TheAlzCenter.org Memory Clinic Serving the South Shore of Boston

Author(s): Chandrashekar S, Kan K, Chan N, Patel R, Nadler D, Drake L E, Nair A K

Abstract

We describe baseline characteristics of 173 memory clinic patients at www.TheAlzCenter.org. Patients mostly from the South Shore of Boston came in for a neurological evaluation regarding their memory. A database such as the one created by www.TheAlzCenter.org will be useful for screening patients for clinical trials and other interventional therapies with specific indications. We plan to reach out to aging agencies to screen community dwelling controls in the future.

Introduction

www.TheAlzCenter.org is a community-based center that became operational in June 2010. Located at Quincy Medical Center, www.TheAlzCenter.org serves the South Shore of Boston, which encompasses both Norfolk and Plymouth counties. Our mission is to prevent and cure Alzheimer’s disease (AD). Using health 2.0 meaningful use certified technology, we collect and store prospective clinical data to assess comparative effectiveness in subjects with memory complaints at a low cost.

TheAlzCenter.org gathers clinical data at least annually from patients on a number of variables relevant to the study of aging and dementia. Clinical data at www.TheAlzCenter.org is of very high quality. It is coded by the clinicians at the time of contact with the patient and verified by an independent rater at a later period for errors. Variables include demographics, features of symptom onset and course, personal medical history, concurrent medications, family history of dementia, laboratory data, and performance measures from neurologic and neuropsychologic examinations. Data is collected from the patients and from their designated caregivers by trained clinicians using structured interviews and objective test measures. Caregivers provide subjective observations regarding patients’ cognitive function, behavior, and level of functional ability regarding activities of daily living. They also provide evidence for decline in these areas.

Methods

The data collected at www.TheAlzCenter.org between July 2010 to December 2011 was retrospectively analyzed for this report.

Patients:
Males and females who attended the memory clinic from July 2010 to December 2011 were included. Patients came into the clinic with concerns regarding their memory. As no identifying information was used for our analysis, informed consent was waived by the institutional review committee.

Cognitive Tests:
A) Mini Mental Status Exam: MMSE was administered according to the original guidelines and scored [1].
B) Montreal Cognitive Assessment: MOCA was administered according to original guidelines and scored[2].
C) Clinical Dementia Rating Scale: CDR was administered according to original guidelines and scored [3].

Diagnostic Procedures:
We used DSM IV-R criteria to assign clinical diagnoses. When applicable, these were supplemented by clinical research criteria for MCI [4], Lewy body dementia [5, 6] and frontal lobe dementia [7, 8]. Dementia severity was also estimated by the MMSE, MOCA, CDR, and additional neuropsychological testing when appropriate.

Statistical Analyses:
All statistical analyses were performed using R version 2.1.3. We report mean and standard deviations of demographic variables.

Results

173 patients, (92 females and 81 males) attended the memory clinic from July 2010 to December 2011.

See Illustration 1 for Table. Table 1 shows a summary of demographic information by diagnostic groups. All values were reported in means(±SD) and were obtained at a patient's baseline visit. Based on clinical assessment by a neurologist,
patients were categorized into the following groups: Alzheimer’s disease (AD) and Mild Cognitive Impairment (MCI). All other causes of memory complaints were classified as “Other” (which include variants of migraine, cerebral degeneration, Parkinson’s disease, and Lewy body dementia). These represent a sample of community-dwelling patients from the South Shore of Boston who attended a memory clinic with “subjective complaints of memory”.

The dataset includes 35 patients with a diagnosis of MCI, 106 with Alzheimer’s disease, and 32 with other cognitive dysfunction based on clinical assessment, including the Clinical Dementia Rating scale and assessment of function. Our average age is 76.1 years. Our patient population is 94.22% percent Caucasian, 3.47% African American, and 1.73% Asian. The female-to-male ratio is 92:81.

Discussion

We describe clinical statistics from a memory clinic in a relatively well-educated patient population from the South Shore of Boston. Our clinical population is similar to the South Shore population with an average age of 76.1 years and a gender ratio of 92:81. Additionally, patients from www.TheAlzCenter.org consist of 94.22% Caucasian subjects and have an average of 12.5 years of education.

The South Shore community is part of both Plymouth and Norfolk counties in Massachusetts. The average age of patients from the www.TheAlzCenter.org is 76.1 years. According to data from the 2010 US Census Bureau, roughly 35% of both the Norfolk and Plymouth county populations are 50 years or older compared to 30% in the US.

Our clinic sample is 53.2% female and 46.8% male which is similar to the gender ratio of the South Shore and the overall US population [11]. Plymouth county is 51.4% female and 48.6% male, whereas Norfolk county is 52.1% female and 47.9% male [11]. The US population is 50.8% female and 49.2% male [11]. Additionally, our patient racial distribution reflects that of the South Shore of Boston. Both Norfolk and Plymouth counties are predominately Caucasian: 82.3% in Norfolk and 85.5% in Plymouth [11] while the overall US is 72.4% [11]. By comparison, our patient population is 92.2% Caucasian. Norfolk and Plymouth counties have a 5.7% and 7.2% African American population, respectively, as compared 12.6% in the US. Our population is 3.5% African American. Lastly, Norfolk’s and Plymouth’s populations are 8.6% and 1.2% Asian, respectively, as compared to 4.8% in the US [11] while our clinic serves 1.7%.

Our clinic population has an average education of 12.5 years. Norfolk county averages 14.6 years of education, and Plymouth county averages 13.78 years of education for persons over 25 years [9]. Education data for the US reveal that Americans over the age of 25 have an average of 13.2 years of education[9, 10]. We speculate that our clinic population, being older, may have had fewer opportunities for extended education than the more recent generations.

Future plans include conducting longitudinal and correlational studies on cognitively normal subjects, individuals with mild cognitive impairment, Alzheimer disease, and other forms of dementia. We plan to connect with outreach programs and aging facilities in the South Shore community for population controls. We will continue to report detailed neuropsychological data of our patients in subsequent papers.

Acknowledgement(s)

The authors gratefully acknowledge grant support from the Massachusetts Life Sciences Center.

References

Illustrations

Illustration 1

Table 1. Characteristics of patients attending www.TheAlzCenter.org

<table>
<thead>
<tr>
<th>Variable</th>
<th>AD (N=106)</th>
<th>MCI (N=35)</th>
<th>Other (N=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at Memory</td>
<td>75.24 (8.57)</td>
<td>66.00 (14.25)</td>
<td>67.06 (13.91)</td>
</tr>
<tr>
<td>Complaint</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at V1 MMSE</td>
<td>76.49 (7.39)</td>
<td>69.89 (8.74)</td>
<td>56.60 (8.17)</td>
</tr>
<tr>
<td>Age at V1 MOCA</td>
<td>77.88 (7.70)</td>
<td>69.32 (13.19)</td>
<td>70.32 (13.06)</td>
</tr>
<tr>
<td>Education</td>
<td>12.34 (2.34)</td>
<td>12.72 (1.95)</td>
<td>12.21 (2.32)</td>
</tr>
</tbody>
</table>
Disclaimer

This article has been downloaded from WebmedCentral. With our unique author driven post publication peer review, contents posted on this web portal do not undergo any prepublication peer or editorial review. It is completely the responsibility of the authors to ensure not only scientific and ethical standards of the manuscript but also its grammatical accuracy. Authors must ensure that they obtain all the necessary permissions before submitting any information that requires obtaining a consent or approval from a third party. Authors should also ensure not to submit any information which they do not have the copyright of or of which they have transferred the copyrights to a third party.

Contents on WebmedCentral are purely for biomedical researchers and scientists. They are not meant to cater to the needs of an individual patient. The web portal or any content(s) therein is neither designed to support, nor replace, the relationship that exists between a patient/site visitor and his/her physician. Your use of the WebmedCentral site and its contents is entirely at your own risk. We do not take any responsibility for any harm that you may suffer or inflict on a third person by following the contents of this website.