Memory Clinic in a Dementia Day Care Center: description and preliminary data

E. Margioti\textsuperscript{1,2}, C. Demenega\textsuperscript{1}, V. D. Pappas\textsuperscript{1}, X. Apostolopoulos\textsuperscript{1}, A. Nika\textsuperscript{1}, M. Monokrousou\textsuperscript{1}, P. Sakka\textsuperscript{1,3}

\textsuperscript{1}Athens Association of Alzheimer’s disease and Related Disorders, Athens, Greece
\textsuperscript{2}Lab of Cognitive Neuroscience, School of Psychology, Aristotle University of Thessaloniki, Greece
\textsuperscript{3}HYGEIA Hospital, Memory Clinic, Athens, Greece
The global impact of dementia

2012: 200,000 people with dementia
2030: 276,000
2050: 365,000

ADI Dementia Greece Report, 2012
Athens Association of Alzheimer’s Disease and Related Disorders

• Athens Association of Alzheimer’s Disease and Related Disorders (AAADRD) is a non-profit organization founded in 2002 by people with dementia, their relatives and health care professionals interested in Alzheimer’s disease.
• It aims at raising awareness of all forms of dementia and improving the quality of life of patients and their families.
• In addition, the AAADRD:
  – organizes educational programs and support groups for formal and informal caregivers of people with dementia
  – provides advocacy of patients’ and caregivers’ rights and needs
  – increases public awareness
  – promotes scientific research
• Participate in European and International Programs (ALCOVE, LLM, SOCIABLE)
• Currently the AAADRD numbers 5.550 official members

+30 210 7013271
www.alzheimerathens.gr
Day Care Centers

• AAADRD runs 4 Day Care Centers in Athens, offering daily care to people affected by Alzheimer’s disease or other forms of dementia.

• Neurologists, psychologists, speech therapists, social workers, nurses, physiotherapists and administrative personnel are employed at the Day Care Centers.

• The Day Care Centers’ activities include:

  – Memory clinic
  – Neuropsychological assessment
  – Cognitive training interventions
  – Physical training programs
  – Other specific therapies (art therapy, speech therapy, occupational therapy, reminiscence therapy), individually or in groups
  – educational programs and support groups for caregivers of people with dementia

• All the above services are provided free of charge
Services of a Dementia Day Care Centre

- Memory Clinic
- Cognitive training Groups / Reminiscence sessions
- Occupational Therapy / Language Therapy
- Increase of Public Awareness
- Physical training programs
- Home Care Program
- Support groups for Caregivers
- Management of behavioural disorders
Dementia Day Care Centre
Activities
Memory Clinic - Method

• Neurologists and psychologists examined each person. Demographics, medical history, reason for taking the examination etc. were recorded for each participant during the clinical evaluation.
• The neuropsychological assessments evaluate 5 cognitive domains: attention/speed, memory, language, executive and visuospatial function.

Neuropsychological Assessments:
• MINI MENTAL STATE EXAMINATION (MMSE)
• CLOCK DRAWING TEST (CDT)
• MONTREAL COGNITIVE ASSESSMENT (MOCA)
• GEORGIA COMPLEX FIGURE TEST
• GREEK VERBAL LEARNING TEST (GVLT)
• BOSTON NAMING TEST- 15SH (BNT)
• TRAIL MAKING TEST (TMT)
• VERBAL AND CATEGORY FLUENCY
• ACTIVITIES OF DAILY LIVING INSTRUMENTS
• GERIATRIC DEPRESSION SCALE (GDS)
Memory Clinic

Since November 2012, 1569 individuals were examined in the Memory Clinic of the Day Care Center in Maroussi of AAADRD.

- 37.8% male & 65.8% female
- Mean age: 74.42±10.49
- Mean educational level: 11.52±5.05 years
- Mini Mental State Examination (MMSE): 23.47±7.87
Memory Clinic

Subjective memory complaints
%

- No: 37.9%
- Yes: 64.3%

Person that first noticed symptoms of loss of memory:

- Other:
- Children:
- Husband/wife:
- Him/herself: 50%

<table>
<thead>
<tr>
<th>Complaints</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No difficulty in remembering names</td>
<td>95.3</td>
</tr>
<tr>
<td>No difficulty in remembering things just read or heard</td>
<td>77.9</td>
</tr>
<tr>
<td>Problems going shopping because of memory loss</td>
<td>73.6</td>
</tr>
<tr>
<td>Problems getting chores done around the house because of memory loss</td>
<td>65.1</td>
</tr>
<tr>
<td>Difficulty in remembering the right word in speech</td>
<td>94.8</td>
</tr>
</tbody>
</table>
The (HELIAD) is a population-based, multidisciplinary, collaborative study designed to estimate, in the Greek population over the age of 65 years, the prevalence and incidence of AD, other dementias, mild cognitive impairment (MCI) and other conditions of aging.

The study also ascertains several demographic, medical, social, environmental, clinical, nutritional, and neuropsychological determinants and lifestyle activities.

3rd Diagnostic meeting, June 2015
Dementia Day Care Center, Maroussi

**Funding/Support:** IIRG-09-133014 from the Alzheimer’s Association; 189 10276/8/9/2011 from the ESPA-EU program Excellence Grant (ARISTEIA) which is co-funded by the European Social Fund and Greek National resources; and ΔΥ2β/ου.51657/14.4.2009 from the Ministry for Health and Social Solidarity (Greece)
In total, 1792 participants have already completed the initial evaluation and 672 have been reassessed after an average of 3 years.

Neurologists carried out a complete and structured neurological evaluation. Trained psychometricians administered a complete battery of neuropsychological tests assessing all major cognitive domains. Dietary intake was evaluated through a semi qualitative Food Frequency Questionnaire (FFQ) developed and validated for the Greek population.

The study is being conducted in Larissa, Thessaly since 2009 and in Maroussi, Athens since 2013.

<table>
<thead>
<tr>
<th></th>
<th>City</th>
<th>Mean/%</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (female)</td>
<td>Maroussi Larissa</td>
<td>64,70% 58,80%</td>
<td>* .031</td>
</tr>
<tr>
<td>Age (years)</td>
<td>Maroussi Larissa</td>
<td>71,42±7,04 73,39±5,58</td>
<td>* .003</td>
</tr>
<tr>
<td>Education (years)</td>
<td>Maroussi Larissa</td>
<td>12,42±4,41 6,34±4,08</td>
<td>* .000</td>
</tr>
<tr>
<td>Mini Mental State Examination (MMSE)</td>
<td>Maroussi Larissa</td>
<td>27,58±3,21 26,58±3,10</td>
<td>* .001</td>
</tr>
</tbody>
</table>
# Prevalence and subtypes of dementia by age

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Age (years)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>65-69 (n=470)</td>
<td></td>
</tr>
<tr>
<td>No dementia</td>
<td>89.3</td>
<td></td>
</tr>
<tr>
<td>MCI</td>
<td>9.8</td>
<td></td>
</tr>
<tr>
<td>Dementia</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Dementia AD*</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Dementia Vascular</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Dementia alcohol</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Dementia FTD</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Dementia PD-LBD</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Dementia else</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>AD comorbidity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD pure</td>
<td>0.4</td>
<td>1.0</td>
</tr>
<tr>
<td>AD + vascular</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>AD + depression/anxiety</td>
<td>0</td>
<td>0.5</td>
</tr>
<tr>
<td>AD other single etiology</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AD multiple etiologies</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Dementia non-AD</td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Male/female with dementia</td>
<td>30.3/69.7</td>
<td>40.7/59.3</td>
</tr>
</tbody>
</table>

*AD=Alzheimer’s disease, PD=Parkinson’s disease, LBD=Lewy Body Dementia*
# Prevalence of dementia and its subtypes analogies by gender

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Prevalence (%)</th>
<th>Total sample</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dementia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5,0%</td>
<td>5,6%</td>
<td>4,2%</td>
<td></td>
</tr>
<tr>
<td>People with dementia diagnosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD</td>
<td>75,3% (n=67)</td>
<td>68,3%</td>
<td>81,3%</td>
<td></td>
</tr>
<tr>
<td>VaD</td>
<td>9,0% (n=8)</td>
<td>9,8%</td>
<td>8,3%</td>
<td></td>
</tr>
<tr>
<td>PDD</td>
<td>9,0% (n=8)</td>
<td>12,2%</td>
<td>6,3%</td>
<td></td>
</tr>
<tr>
<td>FTD</td>
<td>1,1% (n=1)</td>
<td>2,4%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Alcohol related dementia</td>
<td>2,2% (n=2)</td>
<td>4,9%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Dementia of other types</td>
<td>3,4% (n=3)</td>
<td>2,4%</td>
<td>4,2%</td>
<td></td>
</tr>
<tr>
<td>People with Alzheimer’s disease diagnosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probable</td>
<td>90,3%</td>
<td>92,1%</td>
<td>89,1%</td>
<td></td>
</tr>
<tr>
<td>Possible</td>
<td>9,7%</td>
<td>7,9%</td>
<td>10,9%</td>
<td></td>
</tr>
</tbody>
</table>
Partnerships and Consensus

A Portal to Alzheimer's Research Data
Connecting Scientists Worldwide

Member studies: Contact details & summaries

1. Sydney Memory and Ageing Study (Sydney MAS)
2. Canadian Study of Health and Aging (CSHA)
3. Chinese Longitudinal Aging Study (CLAS)
4. Etude Santé Psychologique Prévalence Risques et Traitement (ESPRIT)
5. Korean Longitudinal Study on Cognitive Aging and Dementia (KLOSCAD)
6. Monongahela Valley Independent Elders Survey (MoVIES)
7. Washington Heights Inwood and Columbia Aging Project (WHICAP)
8. Personality and Total Health (PATH) Through Life Project
9. Einstein Aging Study (EAS)
10. ZARADEMP Project (ZARagoza DEMentia DEProssion Project)
11. Hong Kong Memory and Ageing Prospective Study (HK-MAPS)
12. Singapore Longitudinal Ageing Studies (SLAS I & II)
13. Tajiri Project
15. São Paulo Aging & Health Study (SPAH)
16. Hellenic Longitudinal Investigation of Aging and Diet (HELIAD)
17. Satsagun Genkinnon Study (SSS)
18. Bambui Cohort Study of Ageing (BCSA)
19. Hisayama Study
20. Maastricht Ageing Study (MAAS)
22. Atma Jaya Cognitive & Aging Research (ACtive Aging Research)
23. MYNAH (MYsore studies of Natal effects on Ageing and Health)
24. Leipzig Longitudinal Study of the Aged (LEILA75+)

COSMIC Studies

COSMIC (Cohort Studies of Memory in an International Consortium) aims to bring together cohort studies of cognitive ageing internationally in order to facilitate a better understanding of the determinants of cognitive ageing and neurocognitive disorders.
Conclusions

• **Memory Clinic** provide a thorough and timely assessment for possible dementia. The diagnosis is essential in order to understand symptoms, predict how the dementia might progress and suggest how best to manage it (pharmacological and non pharmacological treatments).

• **HELIAD study** provide important data regarding the prevalence, incidence and risk factors of dementia in Greece in order to design and implement comprehensive and effective policies and strategies:
  - The prevalence of dementia and its subtypes in Greece is similar or at the lower range of that reported in many other developed countries and globally.
  - Beneficial effect of factors (e.g. diet, social activities, physical exercise e.t.c.
  - Gradual increase in prevalence every five years in both genders
Thank you for your sustained attention!

eleni_margioti@yahoo.gr
info@alzheimerathens.gr

Aegean Rally, July 2015