Cholinesterase inhibitor therapy does not affect time spent in nursing homes in patients with Alzheimer’s disease.

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Published: 2016-01-01

Citation for published version (APA):
CHOLINESTERASE INHIBITOR THERAPY DOES NOT AFFECT TIME SPENT IN NURSING HOMES IN PATIENTS WITH ALZHEIMER’S DISEASE

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CONCLUSIONS
Women cared for their spouses with Alzheimer’s disease (AD) at home longer than did men. The situation of these female informal caregivers needs attention and possibly support. There was no indication that any aspects of cholinesterase inhibitor (ChEI) therapy (drug agent, dosage, or duration of treatment) altered the survival time in nursing homes (NHs).

RESULTS

Table 1. Sociodemographic and clinical characteristics (n = 220)

| Characteristic                              | Men     | Women    | P-value
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>81.8 ± 5.6</td>
<td>83.8 ± 5.0</td>
<td>0.022</td>
</tr>
<tr>
<td>Age at AD diagnosis, years</td>
<td>74.0 ± 6.4</td>
<td>75.4 ± 5.7</td>
<td>0.043</td>
</tr>
<tr>
<td>Age at NHP, years</td>
<td>84.0 ± 7.5</td>
<td>86.0 ± 6.1</td>
<td>0.021</td>
</tr>
<tr>
<td>Time from start of ChEI therapy to NHP, days</td>
<td>3.8 ± 1.9</td>
<td>3.2 ± 2.1</td>
<td>0.007</td>
</tr>
<tr>
<td>Mean dose of ChEI during the SATS, mg</td>
<td>8.2 ± 2.8</td>
<td>6.8 ± 1.8</td>
<td>0.010</td>
</tr>
</tbody>
</table>

Methods
The Swedish Alzheimer Treatment Study (SATS) is a prospective, observational, multicenter study on the relationship between the aforementioned potential predictors and time influence survival time in NHs has not been previously investigated. We aimed to study the relationship between the aforementioned potential predictors and time spent in NHs.

Table 2. General linear model with time spent in nursing homes (years) as the dependent variable and significantly associated predictors

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>SE</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of cognitive decline</td>
<td>0.752</td>
<td>0.111</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Basic ADL impairment at NHP</td>
<td>0.366</td>
<td>0.169</td>
<td>0.021</td>
</tr>
<tr>
<td>Number of medications ≥ 7</td>
<td>0.146</td>
<td>0.069</td>
<td>0.022</td>
</tr>
</tbody>
</table>

Background
An increased knowledge of factors that affect the time spent in NHs for AD patients treated with ChEIs is important for clinicians and community-based services. The length of stay in NHs might be influenced by factors such as sociodemographic characteristics, rate of AD progression, impairment in activities of daily living (ADL), and concomitant disorders. Whether different aspects of ChEI therapy (drug agent, dose, or treatment duration) in NHs might be influenced by factors such as sociodemographic characteristics, rate of AD progression, impairment in activities of daily living (ADL), and concomitant disorders has not been previously investigated. We aimed to study the relationship between the aforementioned potential predictors and time spent in NHs.

Methods
The Swedish Alzheimer Treatment Study (SATS) is a prospective, observational, multicenter study for the long-term assessment of ChEI therapy in a routine clinical setting. This presentation includes information about 220 deceased SATS participants who had been clinically diagnosed with mild-to-moderate AD (Mini Mental State Examination (MMSE) score, 10–30) at the start of ChEI therapy (treatment) when they were admitted to NHs during the study. Cognitive status (MMSE) and functional performance (Instrumental Activities of Daily Living scale (IADL) and Physical Self-Maintenance Scale (PSMS)) were evaluated at the start of ChEI therapy (about the time of AD diagnosis) and semiannually over 3 years. Concomitant medications and dates of nursing home placement (NHP) and death were recorded. The choice of drug agent and all decisions regarding dosage for each individual patient were left entirely to the discretion and professional judgment of dementia specialists. A test (Figure 1) and one-way analysis of variance (ANOVA) with Bonferroni correction (Figures 2–4) were used to compare differences between the means. A general linear model was used to identify the AD patient’s characteristics that independently affected the survival time from NHP to death (Table 2). The following potential predictors were investigated: sex (male/female), age, years of education, cognitive ability, instrumental and basic ADL capacities at NHP, rate of decline in cognition or function, and type of ChEI, dose, and duration of treatment.

Figure 1. Time in nursing homes according to the rate of cognitive decline

Figure 2. Time in nursing homes according to the number of medications

Figure 3. Time in nursing homes according to the interaction effect of sex by living status

Figure 4. Time in nursing homes according to the interaction effect of sex by living status and number of medications

CONCLUSIONS
Women cared for their spouses with Alzheimer’s disease (AD) at home longer than did men. The situation of these female informal caregivers needs attention and possibly support. There was no indication that any aspects of cholinesterase inhibitor (ChEI) therapy (drug agent, dosage, or duration of treatment) altered the survival time in nursing homes (NHs).