Neurología. 2017;xxx:xxx—xxx

SOCIEDAD ESPAÑOLA DE NEUROLOGIA

NEUROLOGÍA

www.elsevier.es/neurologia

ORIGINAL ARTICLE

Prevalence and incidence of Alzheimer's disease in Europe: A meta-analysis☆,☆☆

H. Niu[a,*], **I. Álvarez-Álvarez**[a], **F. Guillén-Grima**[a,b,c], **I. Aguinaga-Ontoso**[a]

[a] *Departamento de Ciencias de la Salud, Universidad Pública de Navarra, Pamplona, Navarra, Spain*
[b] *Instituto de Investigación Sanitaria de Navarra (IDISNA), Pamplona, Navarra, Spain*
[c] *Medicina Preventiva, Clínica Universidad de Navarra, Pamplona, Navarra, Spain*

Received 14 August 2015; accepted 27 February 2016

KEYWORDS
Alzheimer's disease;
Epidemiology;
Prevalence;
Incidence;
Europe;
Meta-analysis

Abstract
Background: A disease of unknown aetiology, Alzheimer's disease (AD) is the most common type of dementia. As the elderly population grows worldwide, the number of patients with AD also increases rapidly. The aim of this meta-analysis is to evaluate the prevalence and incidence of AD in Europe.
Methodology: We conducted a literature search on Medline, Scopus, and CINAHL Complete using the keywords ''Alzheimer'', ''Alzheimer's disease'', and ''AD'' combined with ''prevalence'', ''incidence'', and ''epidemiology''. A Bayesian random effects model with 95% credible intervals was used. The I^2 statistic was applied to assess heterogeneity.
Results: The prevalence of Alzheimer's disease in Europe was estimated at 5.05% (95% CI, 4.73-5.39). The prevalence in men was 3.31% (95% CI, 2.85-3.80) and in women, 7.13% (95% CI, 6.56-7.72), and increased with age.

The incidence of Alzheimer's disease in Europe was 11.08 per 1000 person-years (95% CI, 10.30-11.89). Broken down by sex, it was 7.02 per 1000 person-years (95% CI, 6.06-8.05) in men and 13.25 per 1000 person-years (95% CI, 12.05-14.51) in women; again these rates increased with age.
Conclusions: The results of our meta-analysis allow a better grasp of the impact of this disease in Europe.
© 2015 Sociedad Española de Neurología. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

☆ Please cite this article as: Niu H, Álvarez-Álvarez I, Guillén-Grima F, Aguinaga-Ontoso I. Prevalencia e incidencia de la enfermedad de Alzheimer en Europa: metaanálisis. Neurología. 2017. http://dx.doi.org/10.1016/j.nrl.2016.02.016
☆☆ This study has not been presented at the SEN's Annual Meeting or at any other conferences or congresses.
* Corresponding author.
E-mail address: niu.74609@e.unavarra.es (H. Niu).

2173-5808/© 2015 Sociedad Española de Neurología. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

PALABRAS CLAVE
Enfermedad de Alzheimer;
Epidemiología;
Prevalencia;
Incidencia;
Europa;
Metaanálisis

Prevalencia e incidencia de la enfermedad de Alzheimer en Europa: metaanálisis

Resumen
Introducción: La enfermedad de Alzheimer es el principal tipo de demencia y una enfermedad de etiología desconocida. Con el aumento de la población anciana mundial, el número de pacientes con enfermedad de Alzheimer muestra una tendencia de crecimiento rápido. El objetivo de este metaanálisis es evaluar la prevalencia e incidencia de la enfermedad de Alzheimer en Europa.
Metodología: La búsqueda de artículos se realizó en las bases de datos Medline, Scopus y CINAHL Complete utilizando las palabras claves «Alzheimer», «Alzheimer's disease» y «AD», combinadas con «prevalence», «incidence» y «epidemiology». Se utilizó el modelo bayesiano de efectos aleatorios, mostrando intervalos de credibilidad del 95%. Para estimar la heterogeneidad se usó el estadístico I^2.
Resultados: La prevalencia de enfermedad de Alzheimer en Europa fue 5,05% (IC del 95%, 4,73-5,39). La prevalencia por sexo en los hombres y las mujeres fue 3,31% (IC del 95%, 2,85-3,80) y 7,13% (IC del 95%, 6,56-7,72), respectivamente, y se encontró una tendencia creciente por grupos de edad.
La incidencia de enfermedad de Alzheimer en Europa fue 11,08 por 1.000 personas-año (IC del 95%, 10,30-11,89), siendo en los hombres y las mujeres de 7,02 por 1.000 personas-año (IC del 95%, 6,06-8,05) y 13,25 por 1.000 personas-año (IC del 95%, 12,05-14,51), respectivamente, con igual tendencia creciente con el aumento de la edad.
Conclusiones: Los resultados del metaanálisis permiten una mejor comprensión de la enfermedad y su impacto en Europa.
© 2015 Sociedad Española de Neurología. Publicado por Elsevier España, S.L.U. Este es un artículo Open Access bajo la licencia CC BY-NC-ND (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Introduction

The World Health Organization defines Alzheimer disease (AD) as a neurodegenerative disease of unknown aetiology, characterised by progressive memory and cognitive impairment[1] which accounts for 50% to 75% of all cases of dementia.[2] According to global statistical data from the Global Burden of Disease Study, AD was one of the fastest-rising diseases among the leading 50 causes of global years of life lost between 1990 and 2013.[3]

Multiple risk factors have been identified, including female sex,[4] age,[5] low education level,[5,6] the *APOE*E4* allele,[7,8] smoking,[9] obesity,[10,11] and diabetes mellitus.[12]

A collaborative study including the results of several European population-based cohorts conducted in the 1990s found a prevalence of 4.4% in people older than 65.[13] Rapid population ageing has resulted in an increasing number of patients with AD. In 2006, a total of 26.6 million patients had AD worldwide, with forecasts suggesting that this number will reach 106.8 million by 2050, with 16.51 million patients in Europe.[14] More recent studies have confirmed this upward trend in the incidence of dementia, predicting a 87% increase in Europe for the 2010-2050 period.[15]

A deeper understanding of the epidemiology of AD is therefore important for early prevention, as it helps healthcare authorities and reduces the impact of the disease on the elderly. This meta-analysis aims to analyse the available literature and estimate the prevalence and incidence of AD in Europe.

Material and methods

Search strategy and selection criteria

We searched the MEDLINE, SCOPUS, and CINAHL Complete databases for articles published between 1 January 1995 and 31 March 2015 and written in English, Spanish, French, Italian, or Portuguese.

We searched by title using the following keywords: ''Alzheimer'', ''Alzheimer's disease'', and ''AD'', combined with ''prevalence'', ''incidence'', and ''epidemiology''. A total of 615 articles were gathered. Additionally, we reviewed the references cited by the selected articles to identify additional studies meeting our inclusion criteria. Two researchers (H.N. and I.A.A.) searched for and assessed the articles; any discrepancies were solved by consensus.

Our meta-analysis included all observational studies fulfilling the following criteria: 1) original articles; 2) including European populations; 3) participants were men and women older than 50; 4) providing original data on prevalence and/or incidence; 5) describing diagnosis of AD, and 6) available in full text. Review articles, meta-analyses, and studies not addressing the epidemiology of AD were excluded.

Data extraction

Data were extracted by 2 researchers (H.N. and I.A.A.) and discrepancies were resolved through consultation with a

دریافت فوری ← متن کامل مقاله

ISIArticles
مرجع مقالات تخصصی ایران

✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
✓ امکان دانلود نسخه ترجمه شده مقالات
✓ پذیرش سفارش ترجمه تخصصی
✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
✓ دانلود فوری مقاله پس از پرداخت آنلاین
✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات