Del 1

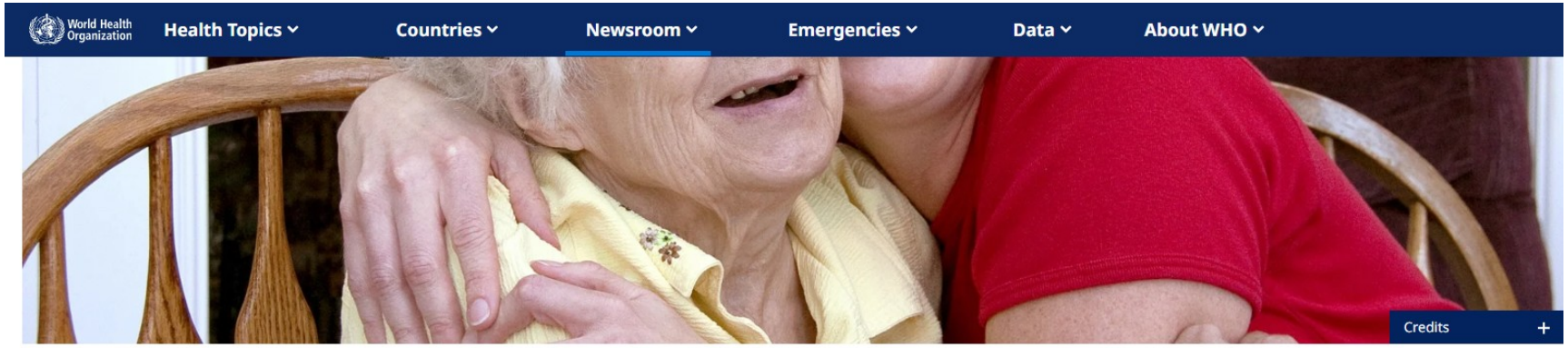
Region Gävleborg

Kognitiva Sjukdomar/Demenssjukdomar

Uppdatering kring handläggning

ÖL Sibylle Mayer Standar, Minnesmottagning, Geriatrik Gävle

Fakta kring Demenssjukdomar / kognitiva sjukdomar => WHO rapport, mars 2023



Dementia

العربية | 中文 | Français | Русский | Español

15 March 2023

Key facts

- **Currently more than 55 million people have dementia worldwide, over 60% of whom live in low-and middle-income countries. Every year, there are nearly 10 million new cases.**
- **Dementia results from a variety of diseases and injuries that affect the brain. Alzheimer disease is the most common form of dementia and may contribute to 60–70% of cases.**
- **Dementia is currently the seventh leading cause of death and one of the major causes of disability and dependency among older people globally.**
- **In 2019, dementia cost economies globally US$ 1.3 trillion, approximately 50% of these costs are attributable to care provided by informal carers (e.g. family members and close friends), who provide on average 5 hours of care and supervision per day.**
- **Women are disproportionately affected by dementia, both directly and indirectly. Women experience higher disability-adjusted life years and mortality due to dementia, but also provide 70% of care hours for people living with dementia.**

Related

- More about dementia
- Package of interventions for rehabilitation
- The Global Dementia Observatory
- iSupport
- WHO mhGAP Intervention Guide
- Towards a dementia plan: a WHO guide
- Towards a dementia inclusive society (who.int)
- Risk reduction of cognitive decline and dementia: WHO guidelines
- Be healthy, be mobile. A handbook on how to implement mDementia (who.int)
- mhGAP dementia module
- iSupport for dementia
- A blueprint for dementia research (who.int)

Demenssjukdomar/kognitiva sjukdomar i Sverige

- 130 000 – 150 000 personer i Sverige lever med en kognitiv sjukdom
  - Incidens 20 000 – 25 000 nya fall
  - 2/3 del Alzheimers sjukdom
  - 8 000 -9 000 yngre personer, ffa mellan 60-65 år

- Prognos för antalet personer med demenssjukdom:
  - År 2030: 188 000
  - År 2050: 253 000

NYTT inom område kognitiva sjukdomar

Livstilsfaktorer

Ny fokus: Livstilsåtgärder

Hjärnans plasticitet => användning av kognitiva, fysiska och sociala aktiviteter

=> kognitiv reserv + rikare nätverk i hjärnan

Oavsett ålder

=> kan kompensera för skador i hjärnan

=> ger lindrigare kognitiva symtom

=> fördröjer utveckling av kognitiva symtom

A 2 year multidomain intervention of diet, exercise, cognitive training, and vascular risk monitoring versus control to prevent cognitive decline in at-risk elderly people (FINGER): a randomised controlled trial

Tiia Ngandu, Jenni Lehtisalo, Alina Solomon, Esko Levälahti, Satu Ahtiluoto, Riitta Antikainen, Lars Bäckman, Tuomo Hänninen, Antti Jula, Tiina Laatikainen, Jaana Lindström, Francesca Mangialasche, Teemu Paajanen, Satu Pajala, Markku Peltonen, Rainer Rauramaa, Anna Stigsdotter-Neely, Timo Strandberg, Jaakko Tuomilehto, Hilkka Soininen, Miia Kivipelto

Summary

Background Modifiable vascular and lifestyle-related risk factors have been associated with dementia risk in observational studies. In the Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER), a proof-of-concept randomised controlled trial, we aimed to assess a multidomain approach to prevent cognitive decline in at-risk elderly people from the general population.

Methods In a double-blind randomised controlled trial we enrolled individuals aged 60–77 years recruited from previous national surveys. Inclusion criteria were CAIDE (Cardiovascular Risk Factors, Aging and Dementia) Dementia Risk Score of at least 6 points and cognition at mean level or slightly lower than expected for age. We randomly assigned participants in a 1:1 ratio to a 2 year multidomain intervention (diet, exercise, cognitive training, vascular risk monitoring), or a control group (general health advice). Computer-generated allocation was done in blocks of four (two individuals randomly allocated to each group) at each site. Group allocation was not actively disclosed to participants and outcome assessors were masked to group allocation. The primary outcome was change in cognition as measured through comprehensive neuropsychological test battery (NTB) *Z* score. Analysis was by modified intention to treat (all participants with at least one post-baseline observation). This trial is registered at ClinicalTrials.gov, number NCT01041989.

Findings Between Sept 7, 2009, and Nov 24, 2011, we screened 2654 individuals and randomly assigned 1260 to the intervention group (n=631) or control group (n=629). 591 (94%) participants in the intervention group and 599 (95%) in the control group had at least one post-baseline assessment and were included in the modified intention-to-treat analysis. Estimated mean change in NTB total *Z* score at 2 years was 0·20 (SE 0·02, SD 0·51) in the intervention group and 0·16 (0·01, 0·51) in the control group. Between-group difference in the change of NTB total score per year was 0·022 (95% CI 0·002–0·042, p=0·030). 153 (12%) individuals dropped out overall. Adverse events occurred in 46 (7%) participants in the intervention group compared with six (1%) participants in the control group; the most common adverse event was musculoskeletal pain (32 [5%] individuals for intervention *vs* no individuals for control).

Interpretation Findings from this large, long-term, randomised controlled trial suggest that a multidomain intervention could improve or maintain cognitive functioning in at-risk elderly people from the general population.

Lancet 2015; 385: 2255–63

Published Online
March 12, 2015
http://dx.doi.org/10.1016/S0140-6736(15)60461-5

Chronic Disease Prevention Unit (T Ngandu PhD, J Lehtisalo MSc, E Levälahti MSc, S Ahtiluoto MD, Prof A Jula PhD, Prof T Laatikainen PhD, J Lindström PhD, Prof M Peltonen PhD, Prof J Tuomilehto PhD, Prof M Kivipelto PhD) **and Welfare and Health Promotion Unit** (S Pajala PhD), **National Institute for Health and Welfare, Helsinki, Finland; Karolinska Institutet Center for Alzheimer Research, Stockholm, Sweden** (T Ngandu, A Solomon PhD, Prof M Kivipelto); **Institute of Clinical Medicine/Neurology** (A Solomon, Prof H Soininen PhD, Prof M Kivipelto) **and Institute of Public Health and Clinical Nutrition** (Prof T Laatikainen), **University of Eastern Finland, Kuopio, Finland; Aging Research Center, Karolinska Institutet-Stockholm University, Stockholm, Sweden**

Interventionsgruppen jämfört med kontrollgruppen

Total kognition
25%
större förbättring

Exekutiv funktion
83%
större förbättring

Komplexa minnesuppgifter
40%
större förbättring

Processhastighet
150%
större förbättring

FINGER-studien,
Ngandu, Kivipelto et al., Lancet 2015

Prof. Mia Kivipielto, KI

FINGER ABC

Vänder sig till allmänheten

FINGER abc har utvecklats av Svenskt Demenscentrum i nära samarbete med forskningsinstitutet FINGERS Brain Health Institute. Utbildningen riktar sig i fö
allmänheten. Även personer som r
kan ha stor nytta av FINGER abc eft
livsstilsförändringar som tas upp k
kognitiv svikt.

Utbildningen tar ungefär 1,5 timme
animeringar, filmer med experter s
Innehållet är uppbyggt kring fem li
kost, fysisk aktivitet, kognitiv träni
kontroll av hjärt- och kärlvärden.

– De här fem livsstilsfaktorerna har
utvecklingen av kognitiv svikt, säge
bakom den ansedda FINGER-studie
baserad på.

Intresset är stort

Wilhelmina Hoffman, demensläkar
intresset för förebyggande åtgärde

– Och vi tror att FINGER abc komm
och av vårdgivare och samordnare

FINGER abc är avgiftsfri och har ut
stiftelse för forskning och utbildning.

- Starta utbildningen FINGER abc (nytt fönster)
- Se kort film om utbildningen (Youtube)

World-Wide FINGERS

WW-FINGERS

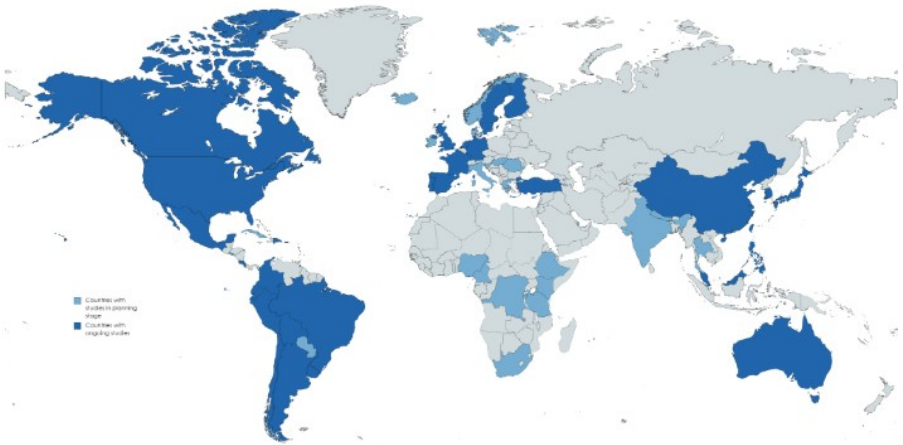
A GLOBAL NETWORK **of research teams**

To expand on the results of the FINGER study, in 2017, Professor Miia Kivipelto initiated World-Wide FINGERS, the first global network of multidomain intervention trials for risk reduction and prevention of cognitive decline and dementia.

The objectives of the network are to adapt, test, and further develop the FINGER model in different geographical, cultural, and economic settings. This includes joint analyses and harmonization of data and methods across studies to generate robust evidence that feeds into dementia prevention strategies globally.

The World-Wide FINGERS network now includes research teams in 70 countries (December 2024), including several low and middle income countries.

- Sedan 2017
- 62 länder



Ny forskning kring Riskfaktorer

THE LANCET

THE LANCET COMMISSIONS · Volume 404, Issue 10452, P572-628, August 10, 2024 Download Full Issue

Dementia prevention, intervention, and care: 2024 report of the *Lancet* standing Commission

Prof Gill Livingston, MD [a,b] · Jonathan Huntley, PhD [c] · Kathy Y Liu, MRCPsych [a] · Prof Sergi G Costafreda, PhD [a,b] · Prof Geir Selbæk, MD [d,e,f] · Prof Suvarna Alladi, PhD [g] · et al. Show more

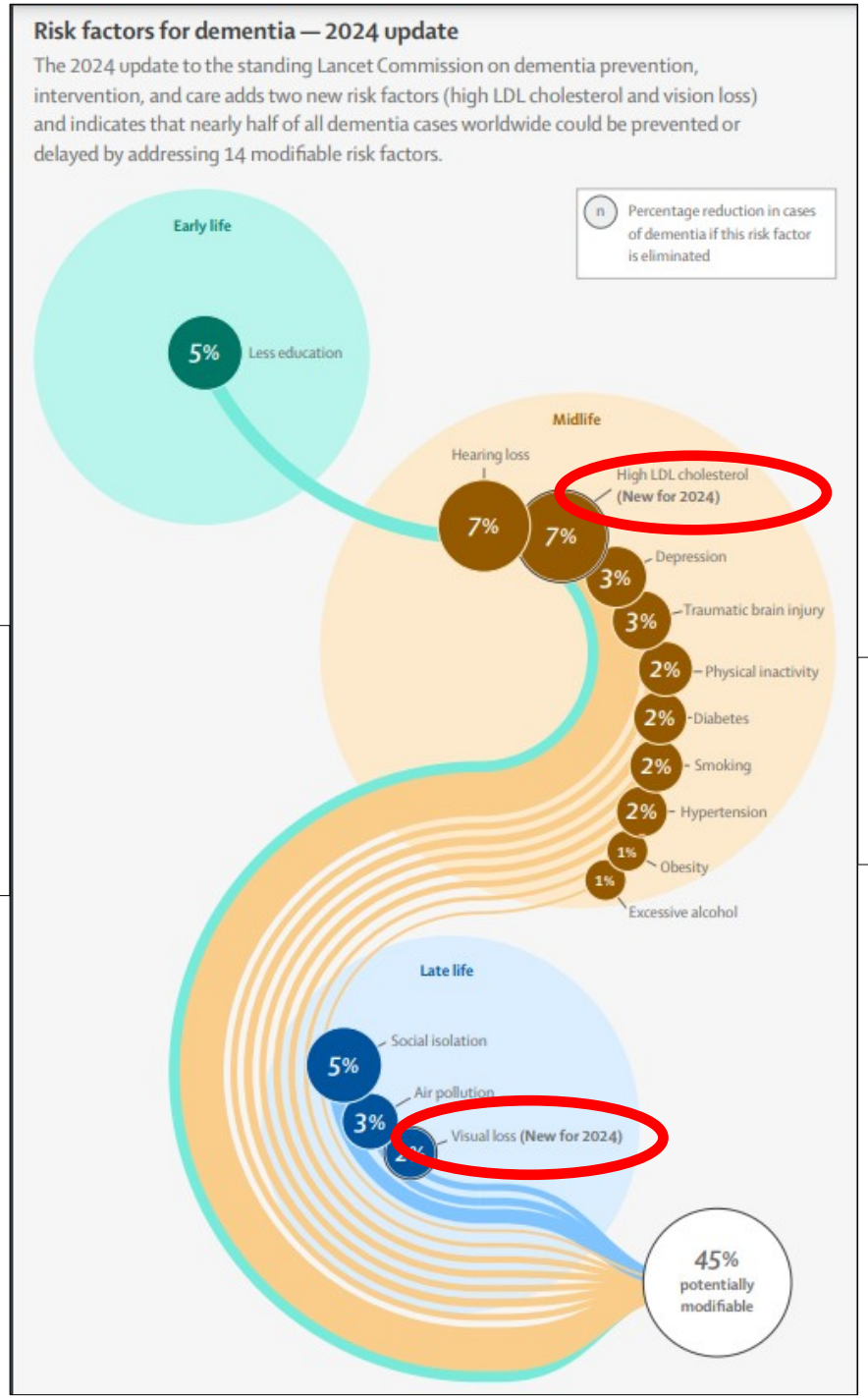
Affiliations & Notes Article Info Linked Articles (3)

Show Outline

The 2024 update of the *Lancet* Commission on dementia provides new hopeful evidence about dementia prevention, intervention, and care. As people live longer, the number of people who live with dementia continues to rise, even as the age-specific incidence decreases in high-income countries, emphasising the need to identify and implement prevention approaches. We have summarised the new research since the 2020 report of the *Lancet* Commission on dementia, prioritising systematic reviews and meta-analyses and triangulating findings from different studies showing how cognitive and physical reserve develop across the life course and how reducing vascular damage (eg, by reducing smoking and treating high blood pressure) is likely to have contributed to a reduction in age-related dementia incidence. Evidence is increasing and is now stronger than before that tackling the many risk factors for dementia that we modelled previously (ie, less education, hearing loss, hypertension, smoking, obesity, depression, physical inactivity, diabetes, excessive alcohol consumption [ie, >21 UK units, equivalent to >12 US units], traumatic brain injury [TBI], air pollution, and social isolation) reduces the risk of developing dementia. In this report, we add the new compelling evidence that untreated vision loss and high LDL cholesterol are risk factors for dementia.

14 Riskfaktorer
uppdaterat juli 2024
Lancet Comission

Nya riskfaktorer:
- LDL kolesterol
- Obehandlat synförlust



45% av demenssjukdomar
kan förebyggas
eller fördröjas

Nya Riktlinjer

Nya vårdprogram

Kunskapsstyrning hälso- och sjukvård

Ange

Kunskapsstöd | Data, uppföljning och analys | Kvalitetsregister | Verksamhetsutveckling | Programom

Kunskapsstyrning vård / Kunskapsstöd / Publicerade kunskapsstöd / Äldres hälsa och palliativ vård / Vårdförlopp kogn

Publicerad 20 juni 2024

Vårdförlopp kognitiv svikt vid misstänkt demenssjukdom

Här finns stödmaterial till det personcentrerade och sammanhållna vårdförloppet för kognitiv svikt vid misstänkt demenssjukdom.

Vårdförlopp för kognitiv svikt vid misstänkt demenssjukdom finns på 1177 för vårdpersonal.

Vårdförlopp kognitiv svikt, 1177 för vårdpersonal

Om vårdförloppet

Demensstrategi 22/1 – 2025
”Varje dag räknas: Nationell demensstrategi 2025–2028”

2 Utgångspun

1. demenssju
2. personer m ngsfullt liv

4 Mål:

3. Kommunen
4. Kommunen
5. Personal in enhet.
4. Anhöriga s anhörigvård

Nytt kring Alzheimers sjukdom

Alzheimers sjukdom

Alzheimers sjukdom
Symtombild

Alzheimers Sjukdom

Försämrat närminne + inlärningsförmågan

Försämrat orientering i tid + rum

Svårare att hitta ord

Logopen afasi

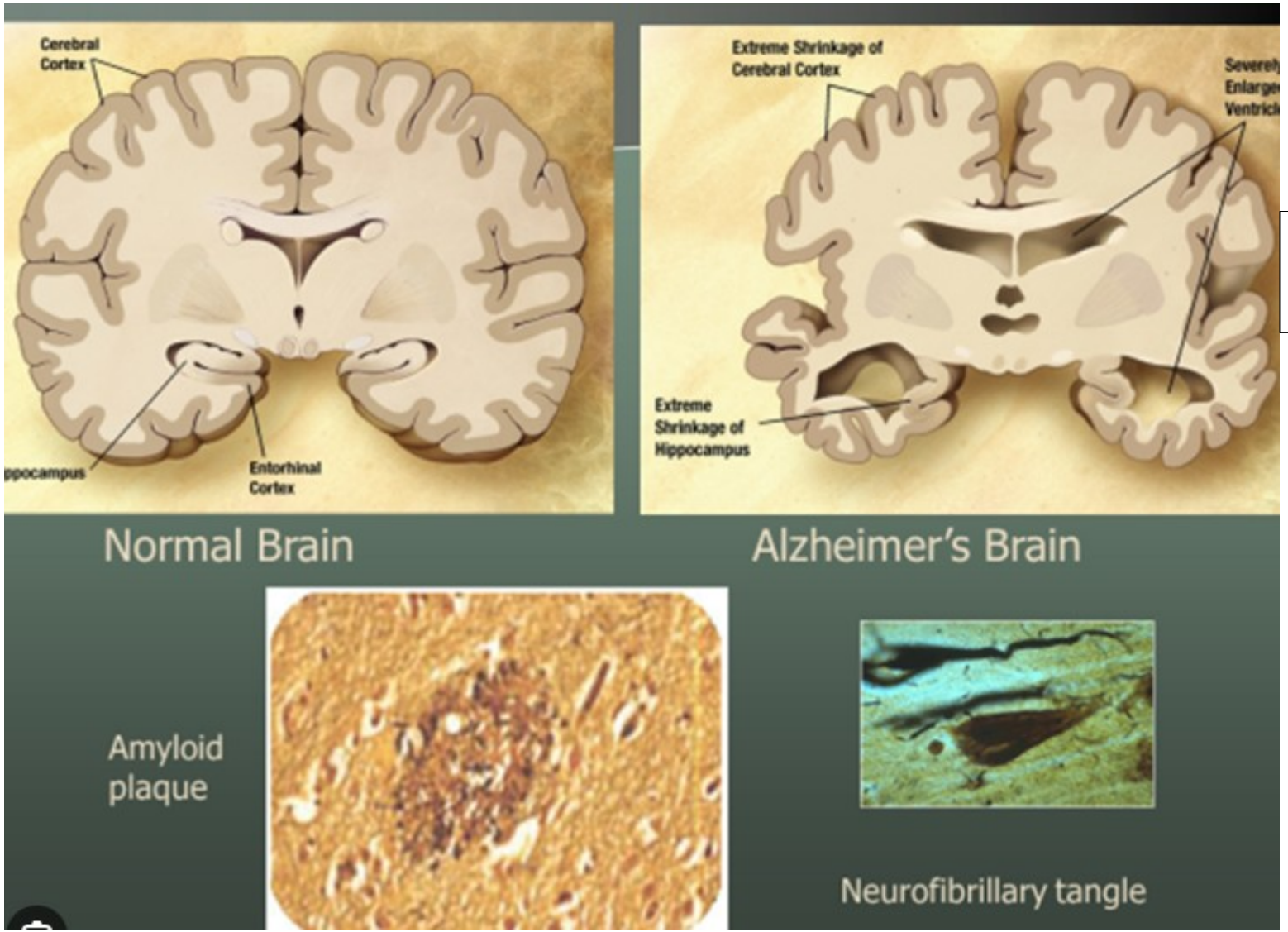
- svårt att hitta ord
- omskrivningar
- tappar bort sig i en mening

Posterior kortikal atrofi (PCA)

- Debut i 50-60års ålder
- Symtom:
  - Visuella och spatiala problem
  - Apraxi
  - Svårt att stava, läsa och räkna
  - Fingeragnosi

  - Svår ångest/oro, depressivitet
  - Minnet välbehållen i början

Neurodegeneration - Patologi



Atrofi
Neurodegeneration

Beta-42-Amyloid

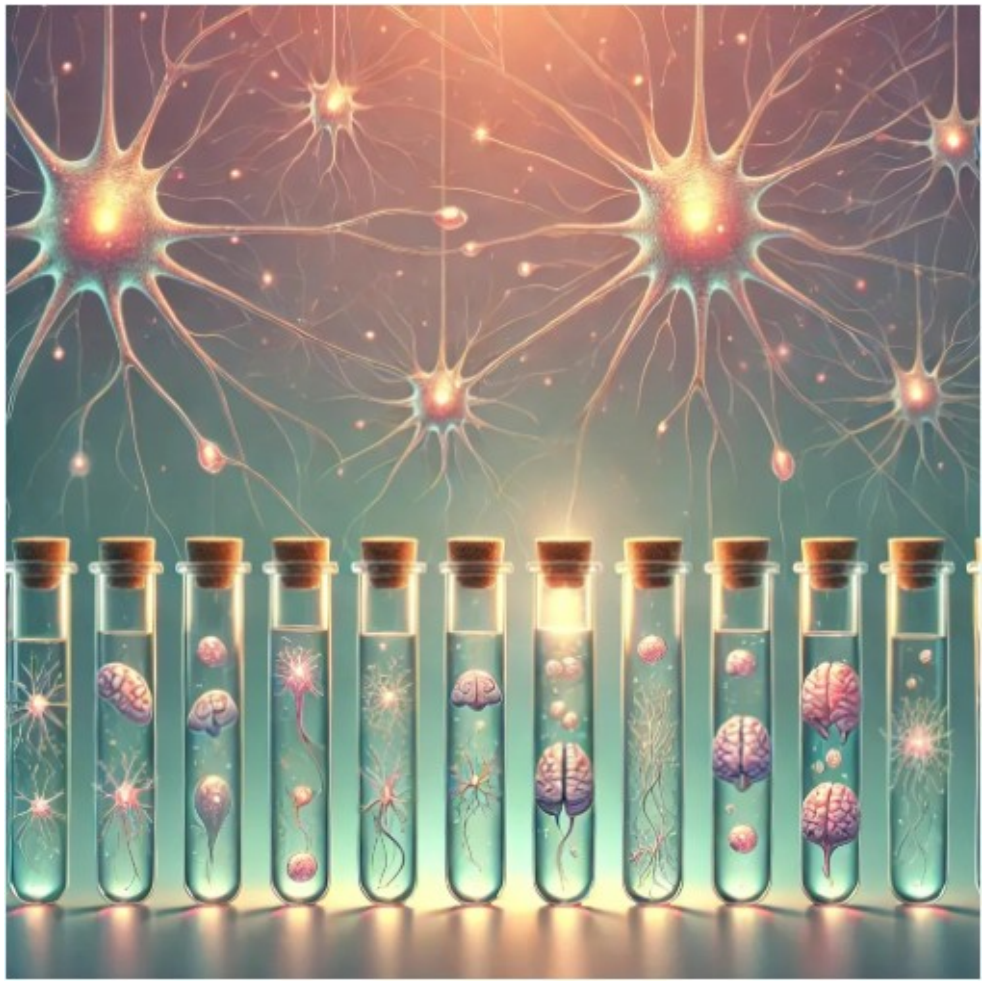
Phosforylerat Tau
PTau

Nytt kring Utredning - Alzheimers sjukdom

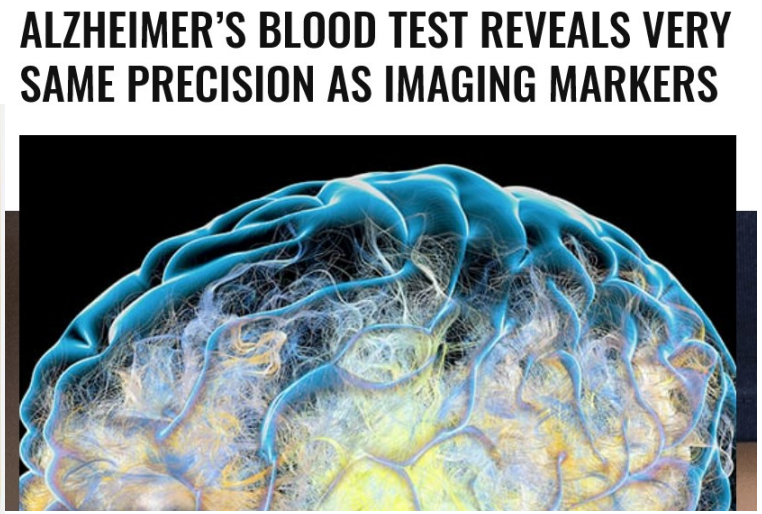
Nytt inom diagnostik – Biomarkörer i blod (BBM)

- Idag:
  - Lumbalpunktion
  - Amyloid – Pet + Tau – Pet (Forskning)

- I Framtiden:
  - Biomarkörer i blod
  - Tidig diagnostik för personer med
    - Lindrig kognitiv nedsättning + AD patologi
    - mild AD



Blodprov kan upptäcka tidig stadium av Alzheimers Sjukdom



P-Tau217 i blodet => Dubbelmarkör

Nytt inom behandling - Alzheimers sjukdom

Behandling av Alzheimers sjukdom =>aktuell

- Livsstilsfaktorer
- Stabilisering av den sociala situationen
  - Kommunala resurser
  - Demens-Ssk resp. anhörigstöd
- Symtomlindrande behandling:
  - Kolinesterashämmare
    - Donepezil
    - Rivastigmin
    - Galantamin
  - Memantin

scientific reports

OPEN

Acetyl-cholinesterase-inhibitors slow cognitive decline and decrease overall mortality in older patients with dementia

Marco Zuin[1], Antonio Cherubini[2], Stefano Volpato[3], Luigi Ferrucci[4] & Giovanni Zuliani[1]✉

We evaluated the effect of Acetyl-cholinesterase-inhibitors (AChEIs) on cognitive decline and overall survival in a large sample of older patients with late onset Alzheimer's disease (LOAD), vascular dementia (VD) or Lewy body disease (LBD) from a real world setting. Patients with dementia enrolled between 2005 and 2020 by the "Alzheimer's Disease Research Centers" were analysed; the mean follow-up period was 7.9 years. A 1:1 propensity score matching was performed generating a cohort of 1.572 patients (786 treated [AChEIs +] and 786 not treated [AChEIs-] with AChEIs. The MMSE score was almost stable during the first 6 years of follow up in AChEIs + and then declined, while in AChEIs− it progressively declined so that at the end of follow-up (13.6 years) the average decrease in MMSE was 10.8 points in AChEIs- compared with 5.4 points in AChEIs + ($p < 0.001$). This trend was driven by LOAD (Δ-MMSE:−10.8 vs. −5.7 points; $p < 0.001$), although a similar effect was observed in VD (Δ-MMSE:−11.6 vs. −8.8; $p < 0.001$). No effect on cognitive status was found in LBD. At multivariate Cox regression analysis (adjusted for age, gender, dependency level and depression) a strong association between AChEIs therapy and lower all-cause mortality was observed (H.R.:0.59; 95%CI: 0.53–0.66); this was confirmed also in analyses separately conducted in LOAD, VD and LBD. Among older people with dementia, treatment with AChEIs was associated with a slower cognitive decline and with reduced mortality, after a mean follow-up of almost eight years. Our data support the effectiveness of AChEIs in older patients affected by these types of dementia.

Dementia is a major health problem in older populations, involving approximately 47 million worldwide[1]. In the U.S. the prevalence of dementia is about 15% in people over 68 years of age[2], and Alzheimer's disease (AD) represents the most frequent type, affecting 5.5 million people[2]; late-onset Alzheimer's disease (LOAD) is the most common form of AD, with an onset over 65 years of age. Despite the recent and much-debated approval of Aducanumab by FDA for AD treatment, Acetyl-cholinesterase-inhibitors (AChEIs), such as donepezil, galantamine and rivastigmine, represent the first line pharmacological treatment options in patients with AD, with the aim of treating symptoms and slowing the natural course of the disease[3–5]. Although the efficacy of AChEIs has been evaluated in different randomized double-blind controlled trials (RCTs) conducted in subjects with AD[6–8], as well as in patients affected by vascular dementia (VD)[9,10], their efficacy in the real world setting has been questioned[7,11]. Doubtless, RCTs represents the "gold standard" method to evaluate the treatment outcomes[12], but their results may be difficult to generalize in daily clinical practice due to the highly selected cohort included which only partially represents the real-life population[13,14]. Conversely, observational studies have the advantage of evaluating the effectiveness and safety of drugs in non-selected cohorts of patients. At present, only a few observational investigations have investigated how AChEIs treatment may influence cognitive decline in patients with LOAD or other forms of dementia[15–18]. However, definitive results were not obtained, especially concerning the effect of long-term treatment. Therefore, the aim of the present study was to evaluate the rate of cognitive decline, as well as the overall survival, in a large sample of patients affected by dementia, treated or not treated with AChEIs in a real-world setting.

Nature, scientific report, 2022
Marco Zuin et al

- Mindre kognitiv nedsättning (AD)
- Lägre mortalitet

ELSEVIER

Alzheimer's & Dementia 14 (2018) 944-951

Alzheimer's & Dementia

Featured Article

Acetylcholinesterase inhibitors and risk of stroke and death in people with dementia

Edwin C. K. Tan[a,b,*], Kristina Johnell[b], Sara Garcia-Ptacek[c,d], Miriam L. Haaksma[b,e], Johan Fastbom[b], J. Simon Bell[a], Maria Eriksdotter[c,f]

- 15% lägre risk för stroke (HR 0.85, 0.75-0.95)

Long-term Effects of Cholinesterase Inhibitors on Cognitive Decline and Mortality

Hong Xu, MD, PhD,* Sara Garcia-Ptacek, MD, PhD,* Linus Jönsson, PhD, Anders Wimo, MD, PhD, Peter Nordström, MD, PhD, and Maria Eriksdotter, MD, PhD

Correspondence
Dr. Xu
hong.xu.2@ki.se

Neurology® 2021;96:e2220-e2230. doi:10.1212/WNL.0000000000011832

- 12 000 AD patienter
- ChEI => 27% lägre mortalitetsrisk

ESC European Society of Cardiology

European Heart Journal - Cardiovascular Pharmacotherapy (2024) **10**, 128–136
https://doi.org/10.1093/ehjcvp/pvad102

ORIGINAL ARTICLE
Prevention and epidemiology

Cholinesterase inhibitors are associated with reduced mortality in patients with Alzheimer's disease and previous myocardial infarction

Bahira Shahim[1,2,†], Hong Xu[3,†], Kristina Haugaa[1,2], Henrik Zetterberg[4,5,6,7,8,9], Juliane Jurga[1,2], Dorota Religa[3,10] and Maria Eriksdotter[3,10,*]

[1]Heart, Vascular and Neuro Theme, Karolinska University Hospital, 17177 Stockholm, Sweden; [2]Department of Medicine Solna, Karolinska Institutet, 17177 Stockholm, Sweden; [3]Department of Neurobiology, Care Sciences and Society, Division of Clinical Geriatrics, Karolinska Institutet, 17177 Stockholm, Sweden; [4]Institute of Neuroscience and Physiology, Department of Psychiatry and Neurochemistry, The Sahlgrenska Academy at the University of Gothenburg, 41345 Mölndal, Sweden; [5]Clinical Neurochemistry Laboratory, Sahlgrenska University Hospital, 41345 Mölndal, Sweden; [6]UK Dementia Research Institute at UCL, London, UK; [7]Department of Neurodegenerative Disease, UCL Institute of Neurology, London, UK; [8]Hong Kong Center for Neurodegenerative Diseases, Hong Kong SAR, China; [9]Wisconsin Alzheimer's Disease Research Center, University of Wisconsin School of Medicine and Public Health, University of Wisconsin-Madison, Madison, WI, USA; and [10]Theme Inflammation and Aging, Karolinska University Hospital, Huddinge, Sweden

Received 8 September 2023; revised 13 November 2023; accepted 18 December 2023; online publish-ahead-of-print 15 January 2024

Background Cholinesterase inhibitors (ChEIs) are the first-line symptomatic pharmacologic treatment for patients with mild-to-moderate Alzheimer's disease (AD). Although the target organ for this group of drugs is the brain, inhibition of the enzyme may affect cardiac function through vagotonic and anti-inflammatory effects.

Objective To assess the impact of ChEIs on outcomes in patients with AD who have experienced myocardial infarction (MI) prior to the AD diagnosis.

Methods Patients who had experienced MI before they were diagnosed with AD or Alzheimer's mixed dementia between 2008 and 2018 were identified from the Swedish Dementia Registry (SveDem, www.svedem.se), which was linked to the National Patient Registry to obtain data on MI and mortality. Cox proportional hazards regression model among a propensity score-matched dataset was performed to assess the association between ChEI treatment and clinical outcomes.

Results Of 3198 patients with previous MI and a diagnosis of AD or mixed dementia, 1705 (53%) were on treatment with ChEIs. Patients treated with ChEIs were more likely to be younger and have a better overall cardiovascular (CV) risk profile. The incidence rate of all-cause death (per 1000 patient-years) in the propensity-matched cohort of 1016 ChEI users and 1016 non-users was 168.6 in patients on treatment with ChEIs compared with 190.7 in patients not on treatment with ChEIs. In this propensity-matched cohort, treatment with ChEIs was associated with a significantly lower risk of all-cause death (adjusted hazard ratio 0.81, 95% confidence interval 0.71–0.92) and a greater reduction with higher doses of ChEIs. While in the unadjusted analysis, ChEIs were associated with a lower risk of both CV and non-CV death, only the association with non-CV death remained significant after accounting for baseline differences.

Conclusion Treatment with ChEIs was associated with a significantly reduced risk of all-cause death, driven by lower rates of non-CV death in a nationwide cohort of patients with previous MI and a diagnosis of AD or mixed dementia. These associations were greater with higher ChEI doses.

Studie på SveDem data 2024

Signifikant minskad mortalitet för personer med tidigare MI och diagnos av AD eller Blanddemens och behandling med kolinesterashämmare

Pos korrelation med högre doser kolinesterashämmare

Sjukdomsmodifierande behandling för AD

Forskning – Alzheimers sjukdom 2022

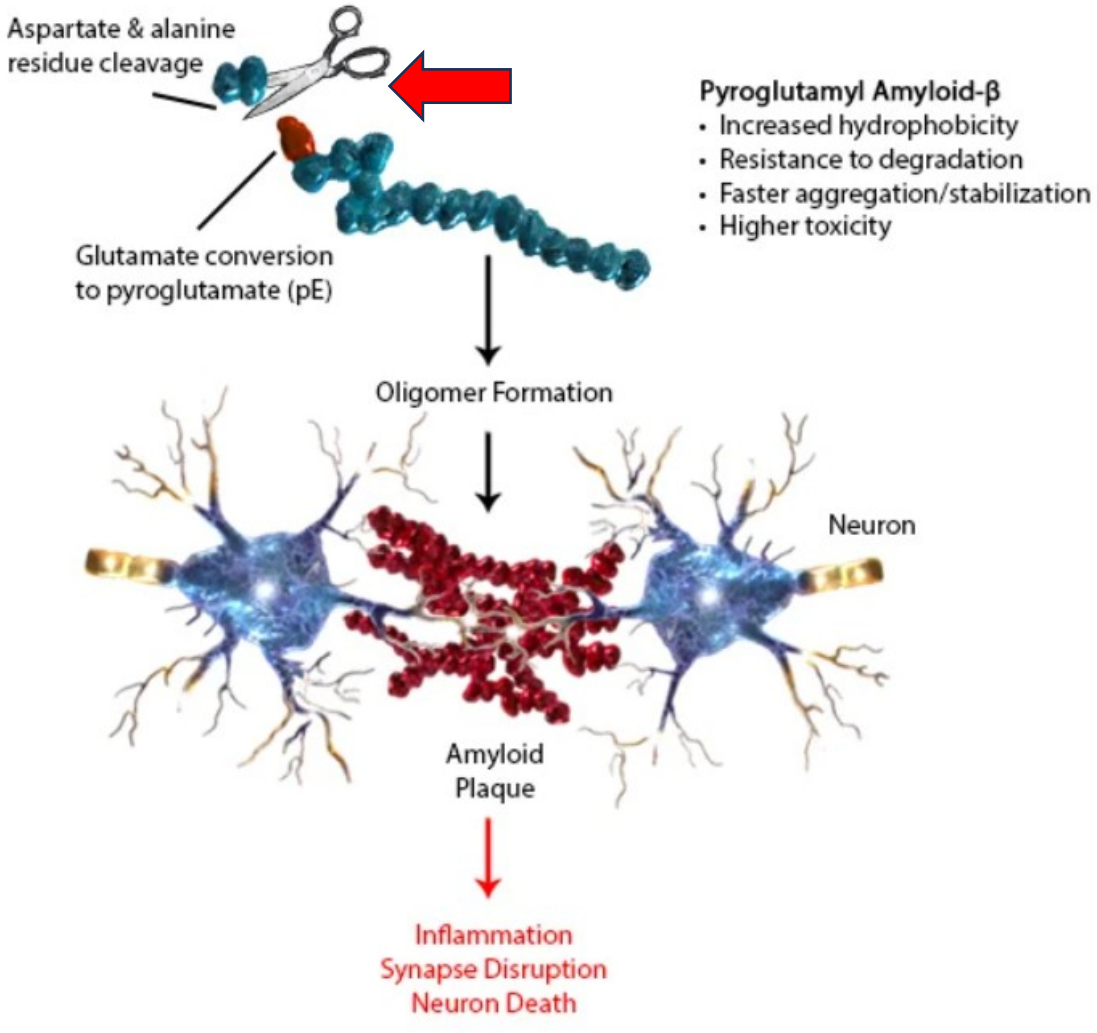
Beta 42 Amyloid

Resultat från fas 3-studien Clarity AD med lecanemab kommer presenteras på Alzheimerkonferensen CTAD

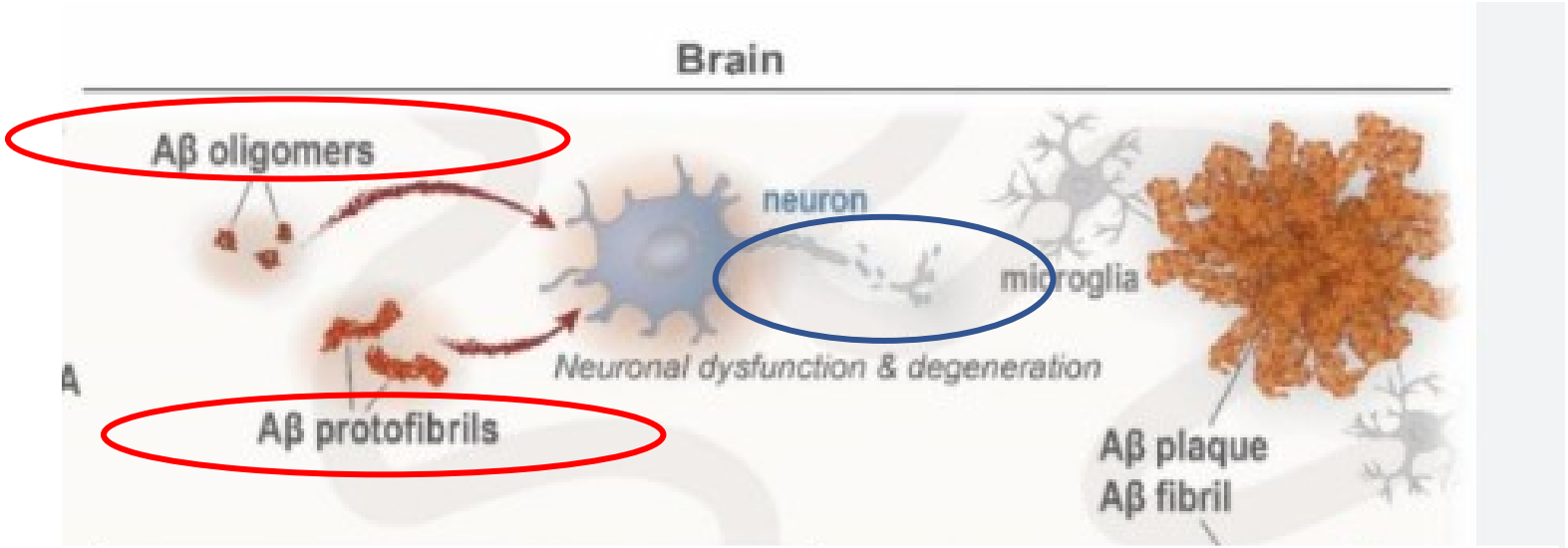
MÅN, NOV 21, 2022 08:00 CET

Report this content

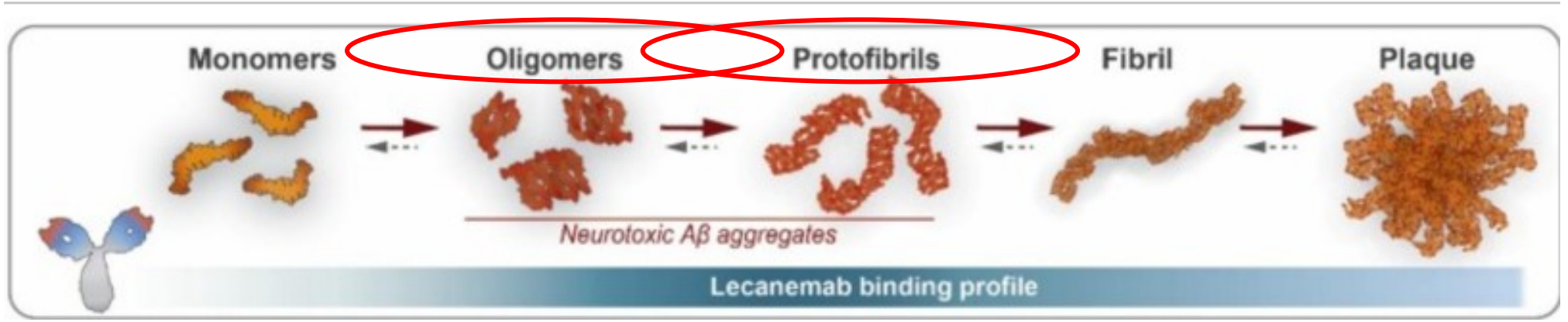
Stockholm, den 21 november 2022 – BioArctic AB:s (publ) (Nasdaq Stockholm: BIOA B) partner Eisai kommer att presentera effekt-, säkerhets- och biomarkördata från den bekräftande fas 3-studien Clarity AD av lecanemab[1] (BAN2401), vid den 15:e CTAD-konferensen (Clinical Trials on Alzheimer's Disease), som pågår i San Francisco, Kalifornien och digitalt från den 29 november till 2 december. Resultaten kommer att presenteras av Eisai och välrenommerade forskare i en vetenskaplig session på kongressens första dag (29 november kl. 16:50 lokal tid). Dessutom kommer BioArctic att presentera en poster om Aβ-protofibriller och lecanemabs bindningsegenskaper och Eisai kommer att presentera ytterligare data för lecanemab i flera muntliga presentationer och posterpresentationer.



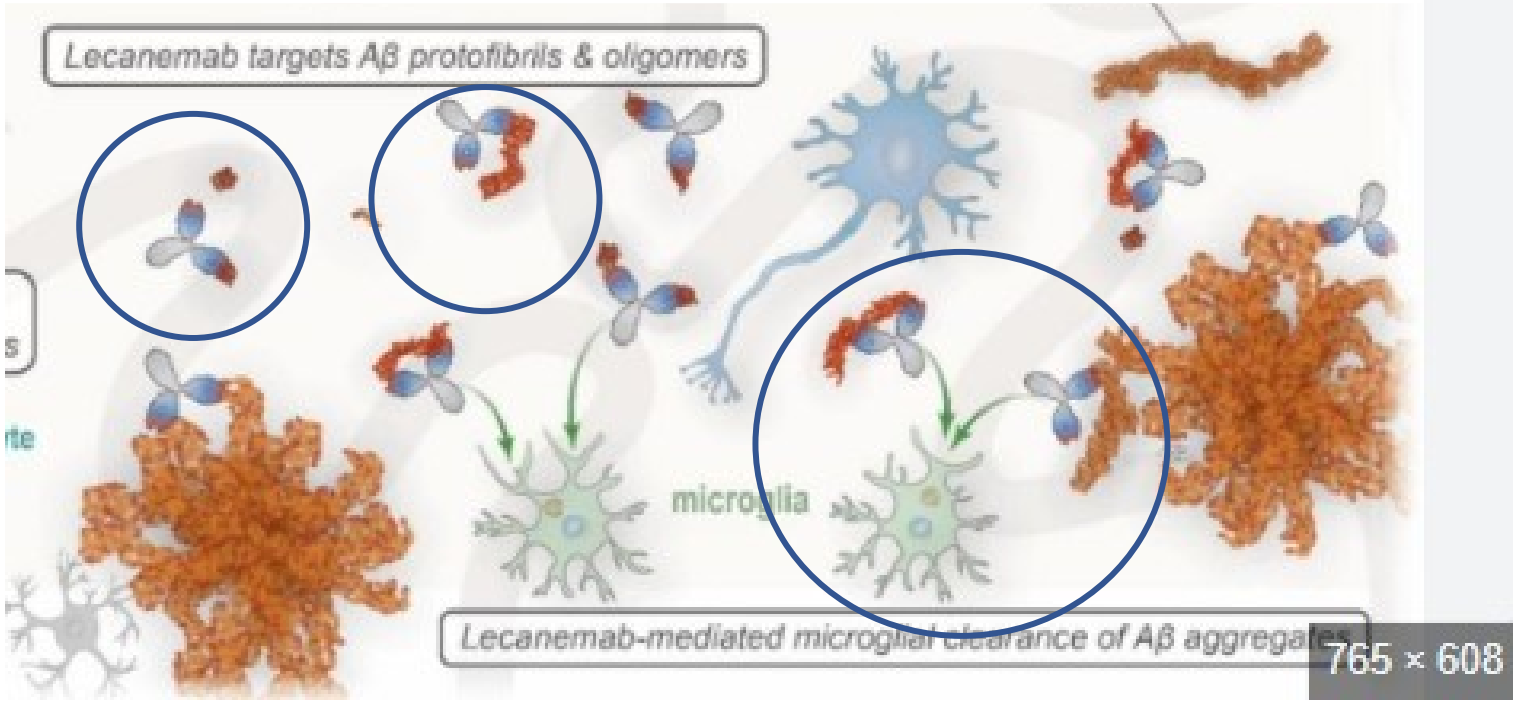
Verkningsmekanism



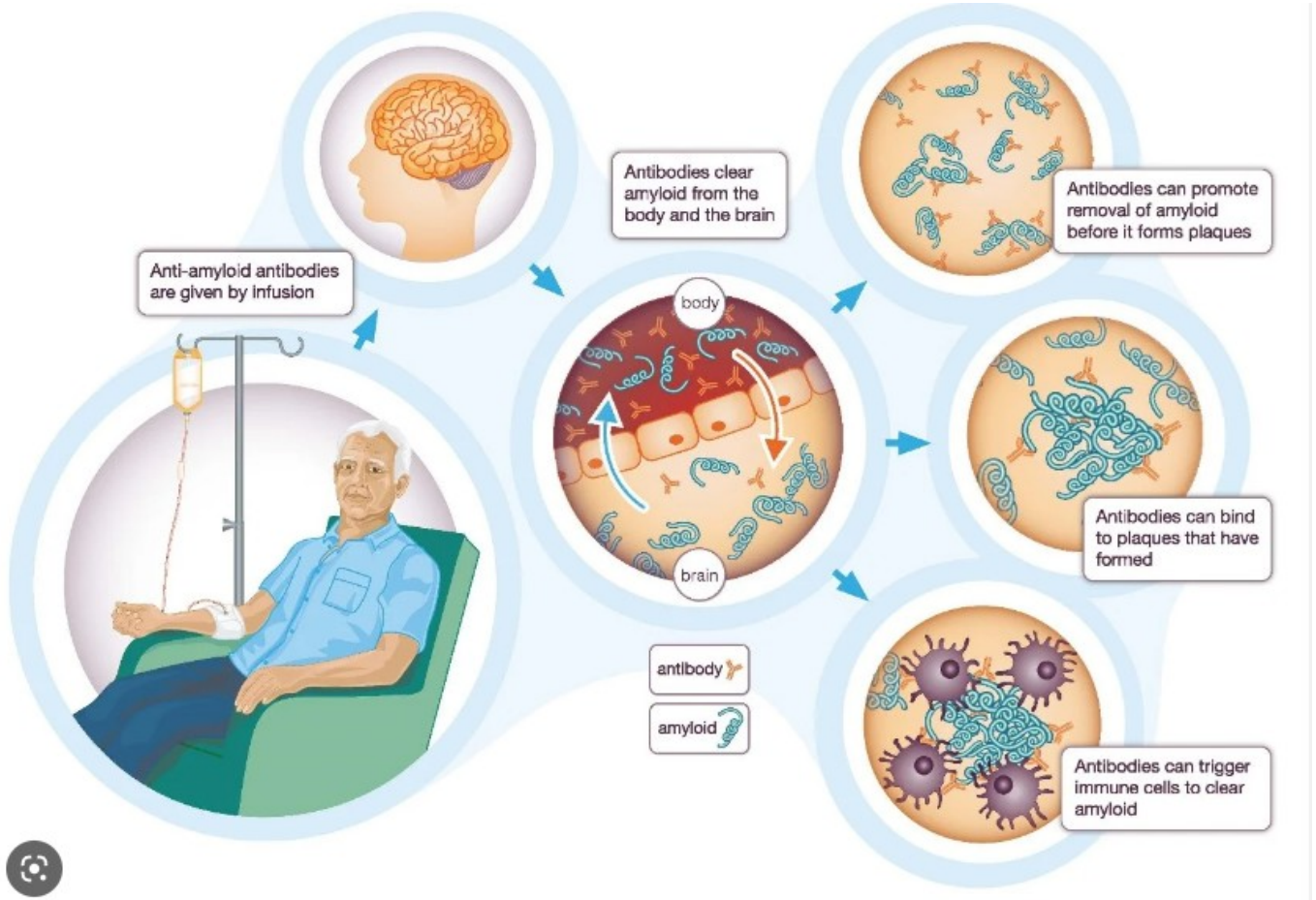
Lecanemab  binder till:



Verkningsmekanism Lecanemab



Lecanemab => infusion var 14:e dag



Lecanemab => Leqembi

godkänt i USA, Japan, Kina, Sydkorea, Hong Kong, Kanada, Israel och Storbritannien

25 juli 2024- EMA:s expertkommitté CHMP (Committee for Medicinal Products for Human Use)

EMA säger nej till lekanemab

Publicerat 2024-07-30

25 juli 2024: den europeiska läkemedelsmyndigheten EMA avslår ansökan om marknadsgodkännande för lekanemab. Motiveringen är att effekterna som visats i studier hittills är små och inte väger upp de potentiellt allvarliga biverkningar, främst amyloid-related imaging abnormalities (ARIA), som visats i studierna. Företaget Eisai GmbH har rätt att ansöka om förnyad bedömning inom 15 dagar från beslutet.

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- Biverkningar i form av ARIA överväger **effekten**

Resultat Lecanemab: effekt efter 18 månader

ADL at 18 months of treatment with lecanemab in all subgroups of disease stage (MCI due to AD or mild AD), ApoE4 status (non-carriers, carriers), presence or absence of concomitant approved AD symptomatic medication, and region (North America, Asia, Europe).

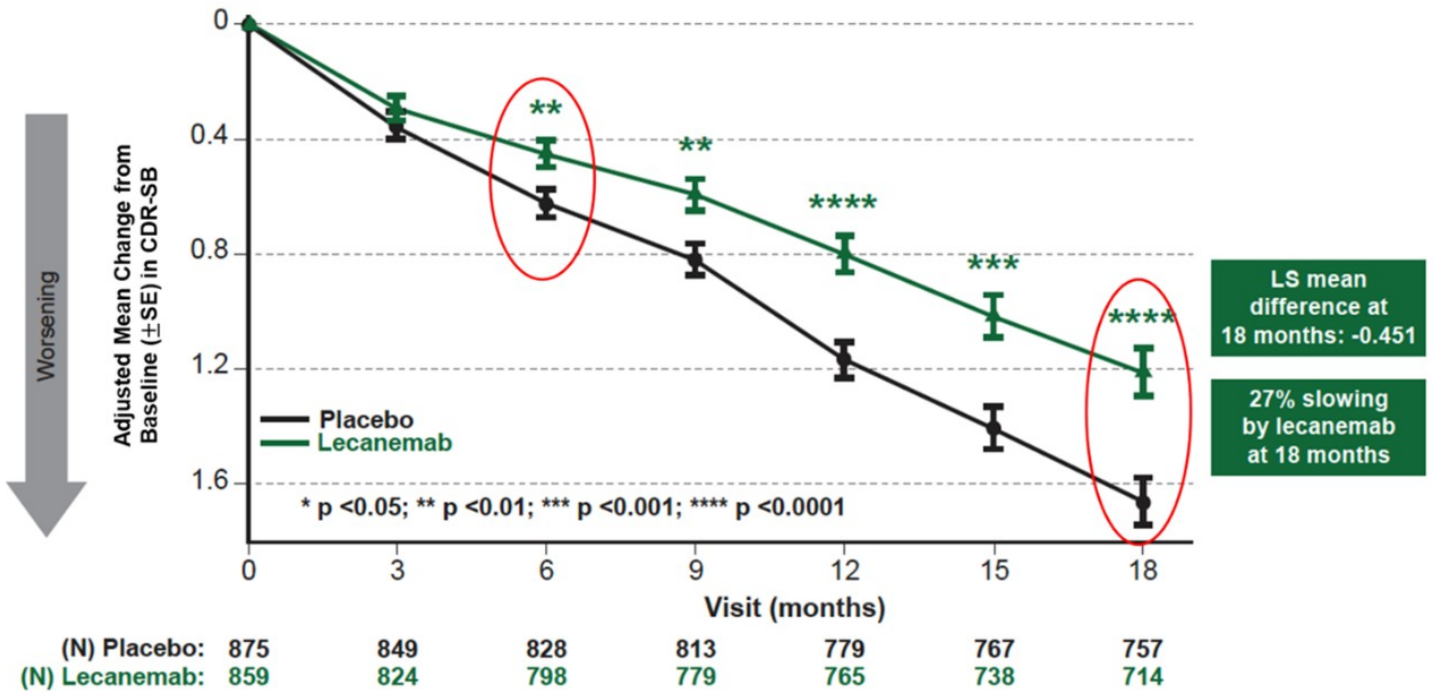

Figure1. CDR-SB as Primary endpoint change (18 months)

Safety Results of Clarity AD

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- **Biverkningar i form av ARIA** överväger effekten

- Vad är ARIA?
  - Amyloid Related Imaging Abnormalities

ARIA-H(ematoma)
Mikroblödningar
Blödningar

ARIA-E(odema)
Vätskeansamling i hjärnan