PZP: A novel biomarker for early Alzheimer’s disease?

Diana A.T. Nijholt
Department of Neurology
Laboratory for Clinical and Cancer Proteomics
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Alzheimer’s disease (AD) - timeline

- Aβ deposits
- Neurofibrillary tangles
- Synapses/ neuronal integrity
- Cognitive impairment

Presymptomatic
1st symptoms
Clinical diagnosis
Death

Relative occurrence

0 5 10 15 20 25 30 years

Adapted from Nelson et al., JNEN 2008
Alzheimer’s disease (AD) - timeline

Aβ deposits

Presymptomatic

1st symptoms

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Cognitive impairment

Synapses/neuronal integrity

Window for therapeutical intervention

Relative occurrence

0 5 10 15 20 25 30 years

Little knowledge

Patients appear healthy
Aim

- Identify **proteins (biomarkers)** differentially expressed in presymptomatic AD
  - Increase knowledge
  - Aid in development of clinically useful routine diagnostic tests
The Rotterdam Study

- Prospective population cohort study

- Started in 1990
  - Up to 2008 ~15 000 men and women recruited
  - Age ≥ 45 years

- Baseline + 2 – 3 yearly follow up
  - Cognitive testing (MMSE)
  - Blood samples (serum), no CSF
  - MRI (subpopulation)

“Investigate the prevalence and incidence of, and risk factors for, chronic disease in the elderly”
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