A big unmet need: Are we able to make a dementia-free society?

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At present time, Alzheimer's disease (AD) drug development is costly and requires a considerable length of time. Trials of disease modifying drugs designed to slow the rate of decline necessary to demonstrate disease modification require at least one year of treatment or longer to see adequate clinical endpoints. The clinical diagnosis of AD is occasionally imprecise using consensus criteria for probable AD, and definite AD requires autopsy confirmation. Diagnostic accuracy is far lower at early and pre-symptomatic stages of AD when confusion with other dementias is common. Since therapy is likely to be most effective at symptom onset, early diagnosis of AD is highly desirable before a massive neurodegeneration becomes obvious. Thus, there is a great need for simple biomarkers that substantially aid early diagnosis and track disease progression of AD and mild cognitive impairment. Of currently available biomarkers for AD, imaging and cerebrospinal fluid biomarkers are of great importance. In particular, in vivo detection of brain amyloid burden using positron emission tomography either by PIB or BF-227 would be attractive. The use of such ideal biomarkers could markedly speed up drug development by providing an earlier signal of drug efficacy.

Cerebrospinal fluid tau levels in a variety of neurological disease

[11C] BF-227 amyloid imaging

Dementia, Alzheimer's disease, Biomarker development, Amyloid imaging, Cerebrospinal fluid, Traditional Medicine, Disease modifying therapy

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