

## 《英媒：科学家开发出诊断阿尔茨海默病的血液检测法》

据英国《卫报》12月27日报道，科学家开发出了一种可以诊断阿尔茨海默病的新型血液测试，英媒报道称，该测试较传统方法更经济，并可更早发现疾病。当前该测试方法仍在试验中。



Scientists have developed a blood test to diagnose Alzheimer's disease without the need for expensive brain imaging or a painful lumbar puncture, where a sample of cerebrospinal fluid (CSF) is drawn from the lower back. If validated, the test could enable faster diagnosis of the disease, meaning therapies could be initiated earlier.

科学家们开发出一种可诊断阿尔茨海默病的新型血液检测，无需进行昂贵的脑部影像检查或痛苦的腰椎穿刺(从下背部抽取脑脊液样本)。如果该检测方法得到验证，阿尔兹海默症可以得到更快诊断，这意味着可以尽早开始治疗。

Alzheimer's is the most common form of dementia, but diagnosis remains challenging – particularly during the earlier stages of the disease.

阿尔茨海默症是最常见的痴呆症，但诊断仍具有难度，尤其是在疾病的早期阶段。

Current guidelines recommend detection of three distinct markers: abnormal accumulations of amyloid and tau proteins, as well as neurodegeneration – the slow and progressive loss of neuronal cells in specified regions of the brain. This can be done through a combination of brain imaging and CSF analysis. However, a lumbar puncture can be painful and people may experience headaches or back pain after the procedure, while brain imaging is expensive and takes a long time to schedule.

目前的医学指南建议检测三种不同的标志物：淀粉样蛋白、Tau蛋白的异常积累，以及神经变性(大脑特定区域神经元细胞的缓慢和渐进性丧失)。以上标志物检测可以结合脑成像和脑脊液分析来完成。然而，腰椎穿刺可能会很痛苦，术后患者可能会感到头痛或背痛，而脑部成像费用昂贵，需要等待很长时间。

Prof Thomas Karikari at the University of Pittsburgh, in Pennsylvania, US, who was involved in the study, said: “ A lot of patients, even in the US, don ’ t have access to MRI and PET scanners. Accessibility is a major issue. ”

参与研究的美国宾夕法尼亚州匹兹堡大学教授托马斯·卡里卡里表示：“很多患者，甚至在美国，都没有机会进行核磁共振成像和PET扫描仪检查。这些检查不够普及是主要问题。”

The development of a reliable blood test would be an important step forwards. “ A blood test is cheaper, safer and easier to administer, and it can improve clinical confidence in diagnosing Alzheimer ’ s and selecting participants for clinical trial and disease monitoring, ” Karikari said.

开发可靠的血液测试将是一个重要的进步。卡里卡里说：“血检更经济、安全、更容易实施，可以提高诊断阿尔茨海默病的临床信心，并为临床试验和疾病监测征选研究对象。”

Although current blood tests can accurately detect abnormalities in amyloid and tau proteins, detecting markers of nerve cell damage that are specific to the brain has been harder. Karikari and his colleagues around the world focused on developing an antibody-based blood test that would detect a particular form of tau protein called brain-derived tau, which is specific to Alzheimer ’ s disease.

尽管目前的血液检测可以准确检测淀粉样蛋白和tau蛋白的异常，但检测大脑特有的神经细胞损伤的标志物一直比较困难。卡里卡里和他在世界各地的同事致力于开发一种基于抗体的血液测试，该测试将检测一种特殊形式的Tau蛋白，被称为脑源性Tau蛋白。这种蛋白是阿尔茨海默病患者特有的。

They tested it in 600 patients at various stages of Alzheimer ’ s and found that levels of the protein correlated well with levels of tau in the CSF, and could reliably distinguish Alzheimer ’ s from other neurodegenerative diseases. Protein levels also closely

corresponded with the severity of amyloid plaques and tau tangles in brain tissue from people who had died with Alzheimer ' s. The research was published in the journal Brain.

研究人员在600名处于不同阶段的阿尔茨海默病患者身上进行了测试，发现脑源性Tau蛋白的水平与脑脊液中的Tau蛋白水平有很大的相关性，能可靠地将阿尔茨海默病与其他神经退行性疾病区分开来。脑源性Tau蛋白质水平还与阿尔茨海默病患者脑组织中的淀粉样斑块和Tau蛋白缠结的严重程度密切相关。这项研究发表在《大脑》杂志上。

The next step will be to validate the test in a broader range of patients, including those from varied racial and ethnic backgrounds, and those suffering from different stages of memory loss or other potential dementia symptoms.

下一步研究将在更广泛的患者中验证该血液测试，包括来自不同种族和民族背景的患者，以及那些患有记忆丧失或其他潜在痴呆症状的不同阶段患者。

Karikari also hopes that monitoring levels of brain-derived tau in the blood could improve the design of clinical trials for Alzheimer ' s treatments.

卡里卡里还希望，通过监测血液中脑源性Tau蛋白水平，可以改善阿尔茨海默病治疗的临床试验设计。

来源：卫报