Amyloid PET Imaging Changed Clinical Decisions in Dementia

By Michele G. Sullivan Reporting From Ctad

Barcelona–Amyloid PET brain imaging changed clinical management in 60% of patients with a diagnosis of mild cognitive impairment or dementia and confirmed a presumptive Alzheimer's diagnosis in 95% of those with positive scans.

But the scans also benefited amyloid-negative patients, Gil Rabinovici, MD, said at the Clinical Trials on Alzheimer's Disease conference. Before the test, 71% carried an Alzheimer's disease (AD) diagnosis; after the test, just 10% did, opening the way for an accurate diagnosis and more effective treatment. "These patients were saved from unnecessary treatment for Alzheimer's," said Dr. Rabinovici, the Edward Fein and Pearl Landrith Endowed Professor in Memory 8(Aging at the University of California, San Francisco. They received more suitable care plans be- cause of the confirmation. He presented final results of aim one of the IDEAS (Imaging Dementia—Evidence for Amyloid Scanning) study, which seeks to prove that amyloid imaging changes clinical management and improves health outcomes in Medicare beneficiaries who have been diagnosed with mild cognitive impairment (MCI) or dementia of uncertain cause. Its two aims are to show that amyloid PET imaging affects a patient's care plan within 3 months of the scan and that this impacts major medical outcomes 12 months later. In diagnostically uncertain cases, investigators theorized, amyloid PET imaging would lead to significant changes in patient management, which would then translate into improved medical outcomes.

Ultimately, investigators hope the U.S.—wide, open—label study will prove the clinical value of amyloid PET scanning and convince the Centers for Medicare 8(Medicaid Services to make the test a fully covered service.

So far, IDEAS has accrued data on 11,409 patients and is quickly closing in on the 18,000—patient target. The patients reported on at CTAD were aged a mean of 75 years and were largely white; only 4% were black and 4% Hispanic. The mean Mini—Mental Scale Exam score was 26. AD was the leading suspect pathology in 73% of the 6,905 with MCI and in 83% of those with dementia of uncertain etiology. Overall, 44% were taking AD medications at baseline.

Scans were positive in 55% of those with MCI and in 70% of those with dementia. Overall, the scans changed clinical management in 61% (7,018), including 60% of those with MCI and 63% of those with dementia.

"We also asked physicians how much the scan results contributed to these changes, and 86.7% replied that they 'contributed significantly,' " Dr. Rabinovici said.

Most changes involved adjustments to medication. AD drugs were start- ed in 44% of MCI patients and in 45°/o of dementia patients, and non- AD drugs started in 22% and 25%, respectively. About a fifth of the patients received counseling in wake of the scan results.

Medication adjustments also varied by scan result. Among amyloid-positive MCI patients, AD drug use in- creased from 40% before imaging to 81% after; among amyloid-negative MCI patients, drug use decreased slightly from 27% to 24%. Among amyloid-positive dementia patients, AD drug use increased from 63% to 91%, and among amyloid-negative patients, it dropped from 50% to 44%. All these changes were statistically significant.

The primary diagnosis changed from AD to non-AD in 25%, and from non-AD to AD in 10%. Among amyloid-positive patients, the diagnosis prevalence jumped from 80.0% to 95.5%; among amyloid-negative patients, it dropped from 71% to just 10%.

"IDEAS now provides the strongest data we have supporting the beneficial impact of amyloid PET on patient management," said Dr. Rabinovici.

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msuIIivan@mdedge.com

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