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Eligibility for Lecanemab Treatment in the Republic of Korea: Real-World Data From Memory Clinics

Sung Hoon Kang[a*], Jee Hyang Jeong[b*], Jung-Min Pyun[c], Geon Ha Kim[d], Young Ho Park[e], YongSoo Shim[f], Seong-Ho Koh[g], Chi-Hun Kim[h], Young Chul Youn[i], Dong Won Yang[j], Hyuk-je Lee[j], Han Lee[k], Dain Kim[k], Kyunghwa Sun[l], So Young Moon[l], Kee Hyung Park[m], Seong Hye Choi[n]

[a]Department of Neurology, Korea University Guro Hospital, Korea University College of Medicine, Seoul, Korea
[b]Department of Neurology, Ewha Womans University Seoul Hospital, Ewha Womans University College of Medicine, Seoul, Korea
[c]Department of Neurology, Soonchunhyang University Seoul Hospital, Soonchunhyang University College of Medicine, Seoul, Korea
[d]Department of Neurology, Ewha Womans University Mokdong Hospital, Ewha Womans University College of Medicine, Seoul, Korea
[e]Department of Neurology, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam, Korea
[f]Department of Neurology, St. Vincent's Hospital, College of Medicine, The Catholic University of Korea, Suwon, Korea
[g]Department of Neurology, Hanyang University Guri Hospital, Guri, Korea
[h]Department of Neurology, Hallym University Sacred Heart Hospital, Anyang, Korea
[i]Department of Neurology, Chung-Ang University College of Medicine, Seoul, Korea
[j]Department of Neurology, The Catholic University of Korea Seoul, St. Mary's Hospital, Seoul, Korea
Departments of [k]Medicine, [l]Neurology, Ajou University School of Medicine, Suwon, Korea
[m]Department of Neurology, Gachon University Gil Medical Center, Gachon University College of Medicine, Incheon, Korea
[n]Department of Neurology, Inha University College of Medicine, Incheon, Korea

Background and Purpose We aimed to determine the proportion of Korean patients with early Alzheimer's disease (AD) who are eligible to receive lecanemab based on the United States Appropriate Use Recommendations (US AUR), and also identify the barriers to this treatment.

Methods We retrospectively enrolled 6,132 patients with amnestic mild cognitive impairment or mild amnestic dementia at 13 hospitals from June 2023 to May 2024. Among them, 2,058 patients underwent amyloid positron emission tomography (PET) and 1,199 (58.3%) of these patients were amyloid-positive on PET. We excluded 732 patients who did not undergo brain magnetic resonance imaging between June 2023 and May 2024. Finally, 467 patients were included in the present study.

Results When applying the criteria of the US AUR, approximately 50% of patients with early AD were eligible to receive lecanemab treatment. Among the 467 included patients, 36.8% did not meet the inclusion criterion of a Mini-Mental State Examination (MMSE) score of ≥22.

Conclusions Eligibility for lecanemab treatment was not restricted to Korean patients with early AD except for those with an MMSE score of ≥22. The MMSE criteria should therefore be reconsidered in areas with a higher proportion of older people, who tend to have lower levels of education.

Keywords lecanemab; eligibility; Alzheimer's disease; Korean; Mini-Mental State Examination.

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Correspondence
Kee Hyung Park, MD, PhD
Department of Neurology,
Gachon University Gil Medical Center,
Gachon University College of Medicine,
21 Namdong-daero 774beon-gil,
Namdong-gu, Incheon 21565, Korea
Tel +82-32-460-3346
Fax +82-32-460-3344
E-mail khpark@gachon.ac.kr

So Young Moon, MD, PhD
Department of Neurology,
Ajou University School of Medicine,
164 World Cup-ro, Yeongtong-gu,
Suwon 16499, Korea
Tel +82-31-219-5175
Fax +82-31-219-5178
E-mail symoon.bv@gmail.com

Seong Hye Choi, MD, PhD
Department of Neurology,
Inha University Hospital,
27 Inhang-ro, Jung-gu,
Incheon 22332, Korea
Tel +82-32-890-3659
Fax +82-32-890-1140
E-mail seonghye@inha.ac.kr

*These authors contributed equally to this work.

INTRODUCTION

Lecanemab is a humanized monoclonal antibody that mainly binds to soluble amyloid-β protofibrils,[1] and it has been approved by the Ministry of Food and Drug Safety of the Re-

public of Korea as a treatment for mild cognitive impairment (MCI) due to Alzheimer's disease (AD) and mild AD dementia (ADD). Although lecanemab is effective in slowing AD progression, several factors must be considered when selecting treatment candidates. First, the amyloid pathology should be identified using amyloid positron-emission tomography (PET) or a cerebrospinal fluid (CSF) analysis, and the clinical diagnosis should be compatible with early AD (MCI or mild ADD).[2] Second, owing to the side effects of amyloid-related imaging abnormalities (ARIA), patients with any of the following conditions on brain magnetic resonance imaging (MRI) should be considered for exclusion[2]: macrohemorrhage, superficial siderosis, brain vasogenic edema, severe white-matter hyperintensities (WMH), multiple lacunar infarctions, or any stroke involving a major vascular territory.

Appropriate Use Recommendations (AUR) have been proposed to guide the introduction of new therapies into real-world clinical practice by the United States (US) Alzheimer's Disease and Related Disorders Therapeutics Work Group.[2] Considering that Asians (including Koreans) are more vulnerable to cerebrovascular diseases,[3,4] which can lead to this population presenting with more brain MRI findings suggestive of vulnerability to ARIA than do non-Hispanic Whites, checking how many candidates might be excluded from lecanemab treatment due to the presence of cerebrovascular diseases is warranted. The percentage of older adults with a low education level or illiteracy is higher in the Republic of Korea than in the US.[5,6] Thus, a larger proportion of Korean patients with early AD might be ineligible when lecanemab inclusion criteria are applied based on the range of Mini-Mental State Examination (MMSE) scores used in the US AUR.

This study aimed to determine the proportion of Korean patients with early AD who could be eligible to receive lecanemab based on the US AUR, and identify the barriers to this treatment. Furthermore, we determined the optimal MMSE score cutoff for selecting Korean candidates for lecanemab treatment. Considering that the proportion of older adults who are poorly educated or illiterate is higher in the Republic of Korea than in the US, we expected that additional standard scoring criteria would need to be applied to Korean older adults to ensure that they receive appropriate lecanemab treatment.

METHODS

Study population

We retrospectively enrolled 6,132 patients with amnestic MCI and mild amnestic dementia at 13 hospitals between June 2023 and May 2024 (Fig. 1). All of these eligible candidates underwent comprehensive neuropsychological testing, and they met the following criteria: objective memory impairment according to a score below -1.0 standard deviation (SD) adjusted for age and education level on the delayed verbal memory test, and a Clinical Dementia Rating (CDR) score of 0.5 or 1. Among these 6,132 patients, 2,058 underwent amyloid PET and 2 underwent a CSF assay for AD biomarkers. Amyloid positivity was found in 1,199 (58.3%) of the 2,058 patients who underwent amyloid PET. The retrospective investigation date was June 1, 2024, and so we excluded 732 patients who did not undergo brain MRI between

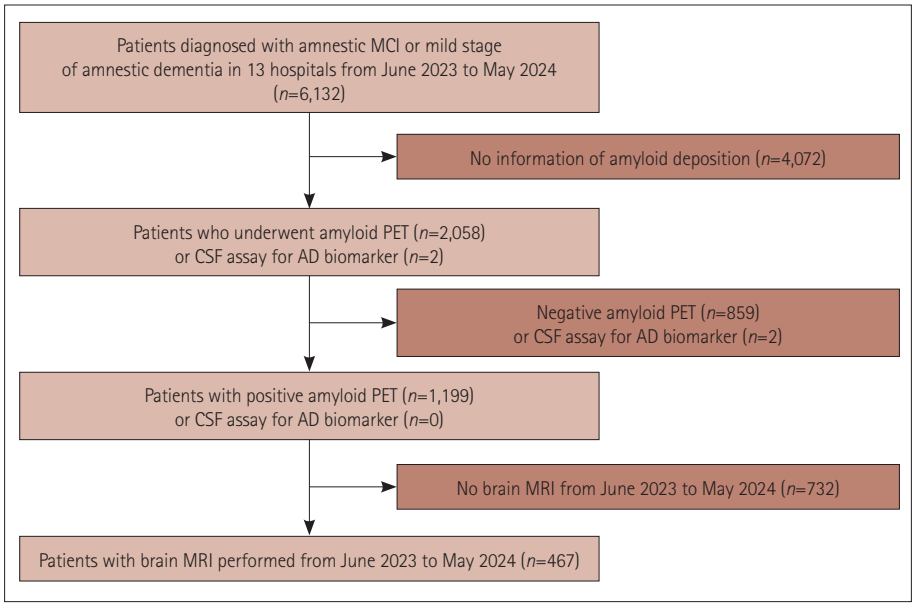

Fig. 1. Study-population flowchart. AD, Alzheimer's disease; CSF, cerebrospinal fluid; MCI, mild cognitive impairment; MRI, magnetic resonance imaging; PET, positron-emission tomography.

June 2023 and May 2024, resulting in 467 patients finally being included in the study analyses.

This study was approved by the Institutional Review Board of the Inha University Hospitial (No. 2024-05-026). Ethical approval was obtained from the institutional review board at each participating center and adhered to the principles of the Declaration of Helsinki. Anonymous and deidentified data from the electronic medical record (EMR) systems were analyzed, and so the study was exempted from the need to obtain informed consents from the included patients.

Application of US AUR inclusion and exclusion criteria

We applied the following inclusion criteria from the US AUR[2]: clinical diagnosis of MCI or mild ADD, MMSE score of ≥22, positive amyloid PET or CSF results indicative of AD, and aged 50−90 years. We next checked how many patients conformed with the following US AUR exclusions: any medical, neurological, or psychiatric condition that may contribute to cognitive impairment or any non-AD MCI or non-ADD; brain MRI findings suggestive of vulnerability to ARIA, including >4 microhemorrhages, macrohemorrhage, superficial siderosis, >2 lacunar infarctions or stroke involving a major vascular territory, evidence of vasogenic edema, severe WMH (defined as a Fazekas score of 3), evidence of amyloid-β-related angiitis (ABRA), or cerebral-amyloid-angiopathy-related inflammation (CAA-ri); recent history (within 12 months) of stroke or transient ischemic attack (TIA), or any seizure history; MRI evidence of non-ADD; mental illness (e.g., psychosis); major depression; any history of immunological disease or systemic treatment with immunosuppressants, immunoglobulins, or monoclonal antibodies; uncontrolled bleeding disorder; anticoagulant use (warfarin, dabigatran, edoxaban, rivaroxaban, apixaban, betrixaban, or heparin); or unstable medical conditions that may affect or be affected by lecanemab therapy.

Amyloid PET evaluations

All patients underwent amyloid PET. A 20-min PET scan in dynamic mode (consisting of four 5-min frames) was performed 90 min after injecting amyloid PET tracer. The obtained amyloid PET images were rated by two experienced doctors (one nuclear medicine physician and one neurologist) at each hospital, and the images were dichotomized as either amyloid-positive or amyloid-negative based on these visual readings. Discordant results regarding amyloid positivity were discussed in order to achieve a final consensus. ^{18}F-florbetaben PET was classified as positive if the detected amyloid plaque load was visually rated as 2 or 3 on the brain amyloid plaque load scoring system. ^{18}F-flutemetamol PET was considered positive when one of five brain regions (frontal, parietal, posterior cingulate and precuneus, striatum, or lateral temporal lobes) systematically reviewed using ^{18}F-flutemetamol PET was judged as being positive in either hemisphere.

CSF assay for AD biomarkers

Two patients underwent a CSF assay for amyloid evaluations of CSF samples collected according to strict guidelines for a Korean cohort study.[7] ELISA assays were conducted with INNOTEST® kits for β-amyloid$_{(1-42)}$ (Aβ42), phospho-tau (pTau)$_{(181P)}$ (# 81574), and hTAU Ag, which comply with the essential requirements of the In Vitro Diagnostic Regulation of the European Union.[8] The cutoff values that yielded the best Youden index for an AD diagnosis were 481 pg/mL for Aβ42, 326 pg/mL for total-tau (tTau), 57 pg/mL for pTau, 0.55 for tTau/Aβ42, and 0.10 for pTau/Aβ42.

MRI evaluations

All patients underwent brain MRI at each hospital between June 2023 and May 2024. T2-weighted, T1-weighted, fluid-attenuated inversion recovery (FLAIR), and T2-weighted gradient-echo (GRE) MRI evaluations were performed.

The WMH burdens in the deep subcortical and periventricular regions on FLAIR images were visually assessed by a neurologist at each hospital using the modified Fazekas scale.[9] The number of lacunes was evaluated according to the following consensus criteria proposed by Wardlaw et al.[10]: small lesions (≤15 mm and ≥3 mm in diameter) with a low signal intensity on T1-weighted images, a high signal intensity on T2-weighted images, and a perilesional halo on 80 axial slices of FLAIR images. The number of microhemorrhages was evaluated using the diameter criterion of ≤10 mm on 20 axial slices from T2-weighted GRE MRI.[11] Cortical superficial siderosis was defined as a linear chronic blood residue in the superficial layers of the cerebral cortex.[12]

Neuropsychological tests

All patients underwent the Seoul Neuropsychological Screening Battery[13] or Literacy Independent Cognitive Assessment[14] neuropsychological battery, which included standardized and validated tests in various cognitive domains. All patients underwent the Korean version of the MMSE, Second Edition (K-MMSE-2).[15] We obtained two types of K-MMSE-2 scores: the raw score and the z-score representing the standardized score adjusted for age and education level based on the norms presented in the K-MMSE-2.[16]

EMR review

We reviewed the EMRs to check for the history of stroke, TIA,

seizures, head trauma, mental illness, major depression, immunological disease, and systemic treatment with immunosuppressants, immunoglobulins, and monoclonal antibodies. We also evaluated the platelet count; international normalized ratio; medication history of anticoagulants, including warfarin, dabigatran, edoxaban, rivaroxaban, apixaban, betrixaban, and heparin; and the history of unstable medical conditions.

Statistical analyses

The chi-square test was used to compare sex, CDR score, and APOE ε4 carriers between groups. Student's *t*-test was applied to compare age, education level, and MMSE and CDR–Sum of Boxes (CDR-SB) scores between the groups. Statistical analyses were performed using SPSS software (version 26.0, IBM Corp.). A probability value of $p<0.05$ was considered significant.

RESULTS

Demographic and clinical characteristics

Table 1 presents the demographic and clinical characteristics of the 467 patients, among whom 243 (52.0%) had MCI and 217 (46.5%) had ADD. They were aged 73.8±8.0 years (mean±SD), and 291 (62.3%) were female. Their education level and MMSE raw score were 10.2±4.9 years and 22.4±4.0, respectively. The MMSE z-score was ≥-1.5 in 200 (42.8%) patients. There were no significant differences in age, sex, MMSE score, or CDR-SB score between patients who did and did not undergo brain MRI within 1 year; the only difference was in education level (Supplementary Table 1 in the online-only Data Supplement).

Table 1. Study-population demographic and clinical characteristics (*n*=467)

Characteristic	Value
Age (yr)	73.8±8.0
Sex, female	291 (62.3)
Education level (yr)	10.2±4.9
Diagnosis	
MCI	243 (52.0)
ADD	217 (46.5)
Other	7 (1.5)
MMSE raw score	22.4±4.0
MMSE z-score ≥-1.5	200 (42.8)
CDR score	
0.5	355 (76.0)
1	112 (24.0)
CDR-SB score	3.20±1.90

Data are mean±standard deviation or *n* (%) values.
ADD, Alzheimer's disease dementia; CDR, Clinical Dementia Rating; CDR-SB, CDR–Sum of Boxes; MCI, mild cognitive impairment; MMSE, Mini-Mental State Examination.

Application of US AUR inclusion and exclusion criteria

The US AUR inclusion and exclusion criteria were met by 229 (49.0%) of the 467 included patients. Specifically, regarding the inclusion criteria, 460 (98.5%) patients were clinically diagnosed with MCI and mild ADD, whereas the remaining 7 (1.5%) patients did not meet this inclusion criterion because they were diagnosed with cerebral amyloid angiopathy, amyloid-positive subcortical vascular dementia, amyloid-positive dementia with Lewy bodies, or amyloid-positive normal-pressure hydrocephalus. Of these, 295 (63.2%) patients had an MMSE score of ≥22, all patients were amyloid-positive on PET scans, and 454 (97.2%) patients were aged 50–90 years (Table 2). Thus, 291 (62.3%) of the 467 patients fulfilled the inclusion criteria for US AUR.

Regarding the US AUR exclusion criteria, 16 (3.4%) patients had a medical, neurological, or psychiatric condition that may have contributed to cognitive impairment, non-AD MCI, or non-ADD (Table 2). Considering the brain MRI findings suggestive of vulnerability to ARIA, 36 (7.7%), 10 (2.1%), 17 (3.6%), 36 (7.7%), 3 (0.6%), 37 (7.9%), 0 (0%), and 5 (1.1%) patients had >4 microhemorrhages, macrohemorrhage, superficial siderosis, >2 lacunar infarctions or stroke involving a major vascular territory, evidence of vasogenic edema, WMH with a Fazekas score of 3, evidence of ABRA, and CAA-ri on brain MRI, respectively (Table 2). Seven (1.5%) patients had a recent history of stroke or TIA, or any seizure history; 36 (7.7%) had MRI evidence of non-ADD; 5 (1.1%) had any history of immunological disease, systemic treatment with immunosuppressants, immunoglobulins, or monoclonal antibodies; 2 (0.4%) had an uncontrolled bleeding disorder; 6 (1.3%) were taking anticoagulants (warfarin, dabigatran, edoxaban, rivaroxaban, apixaban, betrixaban, or heparin); and 7 (1.5%) were in an unstable medical condition (Table 2). As presented in Fig. 2, 19.6% of patients who met the inclusion criteria (*n*=291) also met at least one exclusion criterion.

Optimization of MMSE cutoff scores

Applying the criterion of the range of MMSE raw scores (≥22) recommended by the US AUR resulted in 172 patients (36.8%) being excluded from lecanemab treatment. These 172 patients included 7 (4.1%), 28 (16.3%), and 53 (30.8%) who could have become eligible for lecanemab treatment if the MMSE criterion was adjusted to a z-score below -1.5, -2.0, or -2.5, respectively.

When stratified by cognitive stage, 38 patients (15.6%) with MCI and 131 patients (60.4%) with mild ADD were exclud-

Table 2. Application of the US AUR inclusion and exclusion criteria

Inclusion and exclusion criteria	Participants meeting the criteria (%)
Inclusion criteria	
Clinical diagnosis of MCI or mild ADD	98.5
MMSE score of ≥22	63.2
Positive amyloid PET or CSF results indicative of AD	100
Aged 50–90 years	97.2
Exclusion criteria	
Any cause of non-AD MCI or non-ADD	3.4
Brain MRI findings suggestive of vulnerability to ARIA	
>4 microhemorrhages	7.7
Macrohemorrhage	2.1
Superficial siderosis	3.6
>2 lacunar infarctions or stroke involving a major vascular territory	7.7
Vasogenic edema	0.6
WMH with a Fazekas score of 3	7.9
Amyloid-beta-related angiitis	0
Cerebral amyloid angiopathy-related inflammation	1.1
Recent history (within 12 months) of stroke or TIA, or any seizure history	1.5
MRI evidence of a non-ADD	7.7
Mental illness (such as psychosis)	0
Major depression	0
Any history of immunological disease or systemic treatment with immunosuppressants, immunoglobulins, or monoclonal antibodies	1.1
Uncontrolled bleeding disorder	0.4
Anticoagulants (warfarin, NOACs, or heparin)	1.3
Unstable medical conditions	1.5

AD, Alzheimer's disease; ADD, AD dementia; ARIA, amyloid-related imaging abnormalities; CSF, cerebrospinal fluid; MCI, mild cognitive impairment; MMSE, Mini-Mental State Examination; MRI, magnetic resonance imaging; NOACs, new oral anticoagulants; PET, positron-emission tomography; TIA, transient ischemic attack; US AUR, United States Appropriate Use Recommendations; WMH, white-matter hyperintensities.

ed from lecanemab treatment due to having an MMSE score of <22. The 38 MCI patients included 5 (13.2%), 17 (44.7%), and 20 (52.6%) who could have become eligible for lecanemab treatment if the MMSE criterion was adjusted to a z-score below -1.5, -2.0, or -2.5, respectively; the 131 patients with ADD included 2 (1.5%), 10 (8.0%), and 32 (24.4%) who could have become eligible for lecanemab treatment after making the same adjustments to the MMSE criterion.

As indicated in Table 3, MCI patients with an MMSE score of <22 were older than those with an MMSE score of ≥22 (76.2±6.6 years vs. 72.8±8.2 years), and they had a lower education level (6.2±4.8 years vs. 11.5±4.4 years) and higher

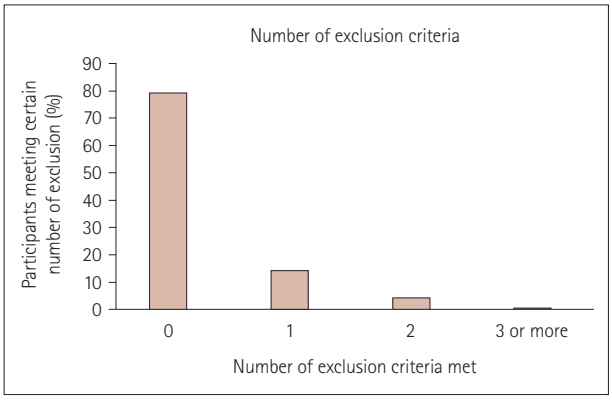

Fig. 2. Prevalence based on the number of exclusion criteria met among patients who met the inclusion criteria of the US Appropriate Use Recommendations produced by the US Alzheimer's Disease and Related Disorders Therapeutics Work Group.

CDR-SB score (2.33±1.28 vs. 1.90±0.99). ADD patients with a raw MMSE score of <22 comprised a higher proportion of females than those with an MMSE score of ≥22 (72.5% vs. 53.5%), and they had a lower education level (8.5±4.7 years vs. 11.8±4.4 years) and a higher CDR-SB score (4.92±1.81 vs. 3.85±1.20).

Normal scores could be defined based on the Gaussian model as those that fall within 2 SDs of the mean.[17] For optimizing the MMSE cutoff score, we recommend using an MMSE z-score of -2.5 to include patients with mild ADD, who have impaired global cognitive function as assessed by the MMSE. The MMSE score in highly educated individuals corresponding to a z-score of -2.5 tends to be higher than 22 (Supplementary Table 2 in the online-only Data Supplement). Therefore, we suggest considering patients with an MMSE score of ≥22 or a score corresponding to a z-score of ≥-2.5 for treatment with lecanemab, particularly in areas where this is a relative large proportion of poorly educated individuals.

DISCUSSION

This study systematically investigated the proportion of Korean patients with early AD who could receive administered lecanemab based on applying the US AUR criteria to a large Asian real-world data set obtained from multiple tertiary or secondary hospitals. Applying the US AUR inclusion and exclusion criteria determined that approximately 50% of the patients with early AD (MCI and mild ADD) were eligible to receive lecanemab treatment. Furthermore, 36.8% of the patients were ineligible for lecanemab treatment after applying the US AUR inclusion criterion of an MMSE score of ≥22. These results highlight that the US AUR are less suitable for patients with a lower education level and low MMSE scores, and suggest that the proportion of Korean patients with ear-

Table 3. Demographic and clinical characteristics of the study population according to MMSE criteria

	Mild cognitive impairment			Alzheimer's disease dementia		
	MMSE score ≥22 (*n*=205)	MMSE score <22 (*n*=38)	*p**	MMSE score ≥22 (*n*=86)	MMSE score <22 (*n*=131)	*p**
Age (yr)	72.8±8.2	76.2±6.6	0.018	73.7±8.5	74.1±9.3	0.764
Sex, female	121 (59.0)	26 (68.4)	0.276	46 (53.5)	95 (72.5)	0.004
Education level (yr)	11.5±4.4	6.2±4.8	<0.001	11.8±4.4	8.5±4.7	<0.001
MMSE score	25.3±2.0	19.9±1.8	<0.001	23.7±1.7	17.7±3.0	<0.001
CDR score						<0.001
0.5	205 (100)	38 (100)	NA†	60 (69.8)	50 (38.2)	
1	0 (0)	0 (0)		26 (30.2)	81 (61.8)	
CDR-SB	1.90±0.99	2.33±1.28	0.021	3.85±1.20	4.92±1.81	<0.001
APOE ε4 carrier‡	113 (62.4)	18 (52.9)	0.298	38 (49.4)	60 (58.8)	0.207

Data are mean±standard deviation or *n* (%) values.
*Chi-square test for categorical variables and Student's *t*-test for continuous variables; †No statistics were computed because the CDR score was constant; ‡APOE genotyping was performed in 394 (85.7%) of 460 patients.
CDR, Clinical Dementia Rating; CDR-SB, CDR–Sum of Boxes; MMSE, Mini-Mental State Examination; NA, not applicable.

ly AD benefiting from lecanemab treatment may be higher when more-appropriate MMSE criteria are applied.

As expected, the proportion of patients excluded based on the MMSE criteria was higher than that in a previous study conducted in the US.[18] Our findings that only about 50% of Korean patients with early AD and high brain amyloid levels may benefit from lecanemab treatment suggest that the US AUR are not appropriate for elderly and less-educated patients with low MMSE scores. A previous Korean study found that the average education level and MMSE score were 9 years and 23, respectively, for MCI subjects, and about 6 years and 16 for mild-ADD patients.[19] In the AD Neuroimaging Initiative study conducted in the US, the average education level and MMSE score were 16 years and 28, respectively, for MCI patients, and 15 years and 23 for mild-ADD patients.[20] These findings indicate the difficulty of directly applying the US AUR criterion of an MMSE score of ≥22 as an indication for lecanemab use in the Republic of Korea. Cognitive performance as measured by the MMSE varies within any population by age and education level. MMSE scores increase with increasing educational attainment and the range of scores narrows. Individuals who reported no formal education had the lowest scores and the widest range. Scores for individuals with lower education levels vary more than those with higher education levels.[17] A definition of normal would be the range of scores that fall between 2 SDs of the mean.[17] For optimizing MMSE cutoff scores, we recommend an MMSE score of ≥22 or an MMSE z-score of ≥-2.5 in order to include patients with mild ADD who have impaired global cognitive function.

Cerebrovascular diseases are more prevalent in Asia than in Western countries.[3] However, this study found that the proportions of patients meeting the exclusion criteria of >2 lacunar infarctions, >4 microhemorrhages, WMH with a Fazekas score of 3, and macrohemorrhage were no higher than those found in a general population study conducted in the US.[16] There are a few possible reasons for these observations. First, patients with cerebrovascular diseases are typically treated at stroke clinics, whereas the present study was conducted at memory clinics, meaning that the proportion of patients who met the exclusion criteria related to cerebrovascular diseases may have been lower than in the previous study conducted in the community.[16] Second, patients with numerous small-vessel diseases or cerebrovascular lesions visible on brain MRI may have been diagnosed with vascular cognitive impairment, and hence would not have undergone an amyloid PET examination. Third, the recent decrease in stroke prevalence in the Republic of Korea[3] could reflect a decline in the prevalence of cerebrovascular diseases.

Despite setting the recruitment criterion for this study as a score on the delayed verbal memory test of more than 1 SD below the mean, only 42.8% of subjects had an MMSE z-score above -1.5. This may have been due to several factors: 1) the average education level of the elderly is lower in the Republic of Korea than in Western countries; 2) many subjects with declines in other cognitive domains may have been included, since only memory was considered in the inclusion criteria, which could have contributed to lower MMSE scores; and 3) combined cerebrovascular diseases, which can impair attention or calculation ability, might have further lowered the MMSE scores. We aimed to determine the number of patients with clinical MCI or early-stage ADD who attended a real-world clinic, determine how many underwent AD biomarker testing, identify the proportion who were amyloid-positive, and determine how many met the primary selection criteria for lecanemab. Based on the study results, we esti-

mate that approximately 60% of patients with clinically suspected early-stage AD who undergo AD biomarker testing can be considered for lecanemab. Furthermore, it is particularly noteworthy that 19.6% of patients who met the inclusion criteria also met at least one exclusion criterion. This percentage provides valuable insight into the applicability of the criteria in a Korean real-world clinical setting. This is a finding that doctors should consider in their clinical practice when they are assessing patient eligibility for lecanemab treatment.

Our study findings are inconsistent with a previous report suggesting that a substantial proportion of patients with MCI or mild ADD with positive amyloid scans are not eligible to receive anti-amyloid treatment due to the presence of other chronic conditions.[18] Possible explanations for this discrepancy include differences in the study populations: that previous study involved a community-based population, whereas our patients were enrolled at memory clinics, and hence they constituted a population with more-significant cognitive decline. Furthermore, individuals at memory clinics suspected of having AD without any other chronic conditions are more likely to undergo amyloid PET. Although there may be issues when generalizing our results to the general population, our results have the potential advantage of being more comparable with the situations that doctors actually experience in clinical practice.

One major strength of this study is that we recruited a large number of patients with MCI and mild ADD who underwent comprehensive dementia evaluations, including amyloid PET. However, this study also had a few limitations. First, the presence of several chronic conditions (e.g., angina) was determined based on the patient history of diagnosis or medications. Second, we could not consider body mass index (BMI)-related exclusion criteria due to the lack of BMI values. However, this issue might have been mitigated by the proportion of the population with a BMI of <17 kg/m^2 or >35 kg/m^2 being relatively low in the Republic of Korea. Third, we could not use statistical methods to reveal the optimal MMSE criterion for deciding about lecanemab treatment in the Korean population. Fourth, the US AUR requires brain MRI to be performed within 1 year prior to taking lecanemab. Therefore, this study selected patients who had undergone brain MRI within 1 year prior to the retrospective investigation. Approximately 60% of the amyloid PET-positive patients were excluded from the study because they had not undergone brain MRI within the previous year. Fifth, the education level of excluded patients was slightly higher than that of those included in the analyses. Therefore, this study should be prospectively repeated with a larger population to ensure representativeness. Sixth, the ability to generalize the study findings to community-based populations is restricted by the cohort being recruited from a memory-clinic setting, which would tend to exhibit greater health-seeking and cognitive-complaint characteristics. Nonetheless, the findings are relevant since they reflect the scenarios that are commonly encountered in clinical practice.

In conclusion, this study found that 60% of early AD patients with clinically suspected early AD had positive amyloid pathology, suggesting that lecanemab should be considered for these patients. Approximately 50% of the patients were eligible to receive lecanemab according to the US AUR. In these patients, >2 lacunar infarctions, >4 microhemorrhages, and severe WMH were each observed in about 8% of the patients, which are lower proportions than those expected in Western countries. When applying the criterion of an MMSE score of ≥22, about 40% of the patients were excluded. Considering the relatively low education level of Korean elderly, it may be more appropriate to use an MMSE score of ≥22 or an MMSE z-score of -2.5 or higher as the indication for lecanemab treatment.

Supplementary Materials

The online-only Data Supplement is available with this article at https://doi.org/10.3988/jcn.2024.0550.

Availability of Data and Material

The datasets generated or analyzed during the study are available from the corresponding author on reasonable request.

ORCID iDs

Sung Hoon Kang	https://orcid.org/0000-0002-2481-0302
Jee Hyang Jeong	https://orcid.org/0000-0001-7945-6956
Jung-Min Pyun	https://orcid.org/0000-0002-8391-5729
Geon Ha Kim	https://orcid.org/0000-0001-5395-1924
Young Ho Park	https://orcid.org/0000-0002-2756-1786
YongSoo Shim	https://orcid.org/0000-0001-5642-5401
Seong-Ho Koh	https://orcid.org/0000-0001-5419-5761
Chi-Hun Kim	https://orcid.org/0000-0001-8167-4530
Young Chul Youn	https://orcid.org/0000-0002-2742-1759
Dong Won Yang	https://orcid.org/0000-0002-4733-7298
Hyuk-je Lee	https://orcid.org/0000-0001-9965-4626
Han Lee	https://orcid.org/0009-0004-1085-4023
Dain Kim	https://orcid.org/0009-0006-0673-6352
Kyunghwa Sun	https://orcid.org/0000-0002-9060-0717
So Young Moon	https://orcid.org/0000-0002-1025-1968
Kee Hyung Park	https://orcid.org/0000-0001-6847-6679
Seong Hye Choi	https://orcid.org/0000-0002-4180-8626

Author Contributions

Conceptualization: So Young Moon, Kee Hyung Park, Seong Hye Choi. Data curation: all authors. Formal analysis: Sung Hoon Kang, Seong Hye Choi. Funding acquisition: Seong Hye Choi. Investigation: Sung Hoon Kang, Jee Hyang Jeong, So Young Moon, Kee Hyung Park, Seong Hye Choi. Methodology: Sung Hoon Kang, Jee Hyang Jeong, So Young Moon, Kee Hyung Park, Seong Hye Choi. Project administration: So Young Moon, Kee Hyung Park, Seong Hye Choi. Supervision: Seong Hye Choi. Visualization: Sung Hoon Kang, Seong Hye Choi. Writing—original draft: Sung Hoon Kang.

Writing—review & editing: So Young Moon, Kee Hyung Park, Seong Hye Choi.

Conflicts of Interest

Seong-Ho Koh, a contributing editor of the *Journal of Clinical Neurology*, was not involved in the editorial evaluation or decision to publish this article. All remaining authors have declared no conflicts of interest.

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