

Rates of ARIA and Infusion-Related Adverse Events from the Use of Lecanemab and Donanemab in a Regional Medical Center

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BACKGROUND

- Anti-amyloid monoclonal antibodies lecanemab (Leqembi®) and donanemab (Kisunla™) have been approved by the U.S. Food and Drug Administration for patients with mild cognitive impairment or mild dementia due to Alzheimer's disease

METHODS

- We examined 187 patients who received at least one lecanemab infusion over a 2-year duration and 51 patients who received at least one donanemab infusion over a 1-year period at the Norton Neuroscience Institute Memory Center
- We adhered to the lecanemab and donanemab appropriate use recommendations regarding surveillance brain MRIs to monitor for ARIA^{1,2}
- After several infusion-related reactions were reported, we instituted a pretreatment oral cocktail of acetaminophen 650 mg, loratadine 10 mg, and famotidine 20 mg
- All patients receiving donanemab received the same pre-infusion cocktail

RESULTS

- Of the 175 patients who underwent at least one surveillance brain MRI following lecanemab initiation, 39 (22.3%) had evidence of ARIA (both ARIA-H and ARIA-E: 13 [33.3%]; solitary ARIA-H: 17 [43.6%]; and solitary ARIA-E: 9 [23.1%]). ARIA was detected in 12 of the 25 (48.0%) ε4 homozygotes, 20 of the 95 (21.0%) ε4 heterozygotes, and 7 of the 55 (12.7%) ε4 non-carriers
- Of the 48 patients who underwent at least one surveillance brain MRI after starting donanemab, 10 (20.8%) had ARIA detected (both ARIA-H and ARIA-E: 5 [50.0%]; solitary ARIA-H: 3 [30.0%]; and solitary ARIA-E: 2 [20.0%]). ARIA was observed in 3 of the 6 (50%) ε4 homozygotes, 5 of the 17 (29.4%) ε4 heterozygotes, and only 2 of the 25 (8.0%) ε4 non-carriers

TABLE: COMPARISON OF LECANEMAB AND DONANEMAB USE IN A REGIONAL MEDICAL CENTER

Therapy	ARIA	Infusion-Related Adverse Event	Discontinuation of Therapy
Lecanemab	39/175 (22.3%)	41/145 (28.3%)	32/187 (17.1%), primarily due to cognitive decline associated with progressive AD (10 [31.2%]) and ARIA progression (9 [28.1%])
	ε4 homozygotes: 12/25 (48.0%)		
	ε4 heterozygotes: 20/95 (21.0%)		
Donanemab	ε4 non-carriers: 7/55 (12.7%)	7/51 (17.1%)	8/51 (15.7%) due to ARIA progression in 5, severe infusion reactions in 2, and need for anticoagulants in 1
	10/48 (20.8%)		
	ε4 homozygotes: 3/6 (50.0%)		
	ε4 heterozygotes: 5/17 (29.4%)		
	ε4 non-carriers: 2/25 (8.0%)		

ARIA: amyloid-related imaging abnormalities AD: Alzheimer's disease

CONCLUSION

- Our findings conclude that lecanemab and donanemab have a similar incidence of ARIA and both may be safely used in a real-world setting
- Rates of ARIA in real-world settings are similar to those observed in pivotal clinical trials

REFERENCES

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