

Real World Experience of Intravitreal Faricimab for Retinal Vascular Disease in Ibadan

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Background: Retinal vascular diseases constitute a leading cause of global visual impairment.¹ This challenge is amplified in developing countries like Nigeria, where the intersection of increasing diabetes prevalence and limited access to subspecialty retinal care creates a growing unmet medical need.²

Evidence-based treatment guidelines from the American Academy of Ophthalmology have established intravitreal Anti-Vascular Endothelial Growth Factor (Anti-VEGF) agents as the standard of care for centre-involving Diabetic Macular edema with vision loss³, Retinal Vascular Occlusion-related macular edema⁴, and neovascular Age-related Macular Degeneration⁵. Nevertheless, the treatment paradigm faces practical limitations due to the frequent injection schedules required by current anti-VEGF monotherapies, resulting in considerable patient and healthcare system burden.

Faricimab (Vabysmo®) introduces a breakthrough bispecific approach by simultaneously targeting Vascular Endothelial Growth Factor-A (VEGF-A) and angiopoietin-2 pathways.⁶ This dual mechanism reduces vascular permeability and neovascularization while stabilizing blood vessels and decreasing VEGF-A sensitivity, achieving longer treatment intervals than conventional anti-VEGF agents.⁷⁻¹¹ Following faricimab's recent introduction in Nigeria, we present our initial real-world experience at University College Hospital, Ibadan.

Methods: A retrospective case series of patients who received intravitreal faricimab injections for retinal vascular diseases at the Department of Ophthalmology, University College Hospital, Ibadan. Patients' demographic characteristics, diagnosis, baseline and follow-up best corrected visual acuity (BCVA), optical coherence tomography findings, number of injections, and adverse events were obtained from the patients' records and analysed. Cases included diabetic macular edema (DME), central retinal vein occlusion with macula edema (CRVO + ME), and choroidal neovascular membrane (CNVM) from wet age-related macular degeneration.

Results: Ten patients were treated with faricimab, including 4 cases of DME, 3 cases of CRVO with macular edema, and 3 cases of wet AMD with CNVM. Their ages ranged from 56 to 79 years. Visual acuity (VA) improvements were observed after the first injection in 8 cases. Notable outcomes included: Case 1 (CRVO) - VA improved from counting fingers to 6/12; Case 2 (CRVO) - VA improved from counting fingers to 6/18; Case 7 (CNVM) - VA improved from 6/60 to 6/12 after switching from bevacizumab; Case 10 (CNVM) - VA improved from 6/36 to 6/12 after failed bevacizumab and aflibercept therapy. Complete resolution of macular edema and subretinal fluid was achieved in 8 cases after the first injection and all cases after the third injection. Two cases (20%) developed sterile intraocular inflammation with elevated intraocular pressure (28-40 mmHg) occurring 1-2 weeks after the third injection, which resolved with topical anti-inflammatory and anti-glaucoma medications.

Conclusion: Real-world application of faricimab in Ibadan demonstrates significant therapeutic potential for retinal vascular diseases, with patients achieving rapid visual and anatomical improvements. Careful surveillance for inflammatory responses remains essential, particularly after the second injection. Region-specific randomized controlled

trials are needed to establish evidence-based treatment algorithms for our population.

Keywords: Faricimab, retinal vascular disease, diabetic macular edema, retinal vein occlusion, age-related macular degeneration, Nigeria

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