6ER-009

PRESCRIBING PATTERNS AND EFFECTIVENESS OF RANIBIZUMAB AND AFLIBERCEPT IN PATIENTS WITH CENTRAL RETINAL VEIN OCCLUSION: A RETROSPECTIVE COHORT STUDY IN TAIWAN

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Background

- Central retinal vein occlusion (CRVO) is an important cause of visual loss among adults.
- Ranibizumab and aflibercept, designed to target vascular endothelial growth factor (VEGF), were approved by Taiwan Food and Drug Administration (TFDA) and have become the mainstream therapy for CRVO in Taiwan.

Objectives

Ranibizumab
Aflibercept

→ Prescribing patterns

Central retinal thickness (CRT)
Visual acuity (VA)

Methods

Retrospective cohort study
Chang Gung Research Database (CGRD)

Jan. 2017 to Dec. 2021
(Newly initiating)
Follow-up 2 years

127 ranibizumab
93 aflibercept

VA → LogMAR VA
(logarithm of the minimum angle of resolution)
Independent t-test
Paired t-test

Results

Characteristic	ranibizumab (n=127)	aflibercept (n=93)
Age, mean (SD)	65.6 (13.8)	
Female, n (%)	97 (44.7)	
LogMAR VA, mean		
Baseline	0.87	0.92
1-year	0.92	0.92
2-year	0.92	0.93
CRT, mean		
Baseline	510.8	577.7
1-year	343.5	346.5
2-year	310.6	298.5

Table 1. Baseline Characteristics

Baseline (ranibizumab vs. aflibercept)

LogMAR VA: 0.87 vs. 0.92, p=0.29

CRT (μm): 510.8 vs. 577.7, p=0.006

Effectiveness (baseline vs. 1、2-year)

ranibizumab

LogMAR VA —
- 1-year (0.87 vs. 0.92, p=0.51)
- 2-year (0.87 vs. 0.92, p=0.49)

CRT ↓
- 1-year (510.8 vs. 343.5 μm, p<0.001)
- 2-year (510.8 vs. 310.6 μm, p<0.001)

aflibercept

LogMAR VA —
- 1-year (0.92 vs. 0.92, p=0.90)
- 2-year (0.92 vs. 0.93, p=0.91)

CRT ↓
- 1-year (577.7 vs. 346.5 μm, p<0.001)
- 2-year (577.7 vs. 298.5 μm, p<0.001)

Conclusions

- Our data suggest that upcoming comparative studies between these treatments should consider the observed baseline differences in CRT.
- Significant reductions of CRT without clinical improvements of VA in CRVO eyes treated with intravitreal ranibizumab or aflibercept in Taiwan’s clinical practice. Future studies should determine the benefits of CRT reductions on other long-term visual outcomes in CRVO patients.

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Abstract