

# ENDOPHTHALMITIS AS AN ADVERSE REACTION TO INTRAVITREAL ADMINISTRATION OF AFLIBERCEPT AND RANIBIZUMAB

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## BACKGROUND AND IMPORTANCE

Intravitreal injections of anti-vascular endothelial growth factor (**anti-VEGF**) agents, are widely used. Although generally safe, they carry a **risk of endophthalmitis**, a rare but severe adverse event.



## AIM AND OBJECTIVES

To determine the **incidence of endophthalmitis** as an adverse reaction following intravitreal injection of prefilled syringe formulations of **aflibercept** and **ranibizumab**.



## MATERIAL AND METHODS

- Retrospective descriptive study → Patients treated with aflibercept or ranibizumab between January 2021 and August 2025.

- Patient Identification: search using the Hospital Pharmacy dispensing software, filtered by indications.

Age-related macular degeneration (AMD)
Diabetic macular oedema (DMO)
Choroidal neovascularisation (CNV)
Retinal vein occlusion (RVO)
Other eye diseases

- Identification of suspected cases of endophthalmitis: searching for **compounded ceftazidime and vancomycin eye drops or intravitreal syringes**, both used in initial endophthalmitis management.



- Review of electronic medical records: confirm the diagnosis and clinical course.



## RESULTS

Patients receiving treatment

Aflibercept: n = 2019  
 Ranibizumab: n = 1689

Ceftazidime and Vancomycin: n = 101

Previous anti-VEGF: n = 12  
 Aflibercept: n = 2  
 Ranibizumab: n = 4  
 Both: n = 6

Cases of post-injection endophthalmitis	n = 6
♀	4
♂	2
Median age	82.5 (55-94) years

Case number	Indication	Anti-VEGF agent	Onset of symptoms (days)	Previous injections for aflibercept/ranibizumab
1	NVC	Aflibercept	3	9/2
2	EMD	Aflibercept	5	9/1
3	OVR	Ranibizumab	7	0/13
4	DMAE	Aflibercept	28	10/6
5	DMAE	Ranibizumab	7	0/6
6	DMAE	Aflibercept	7	14/6



## CONCLUSION AND RELEVANCE

- ✓ Endophthalmitis represents a **low-incidence adverse event** associated with intravitreal anti-VEGF injections for **AMD, DMO, CNV and RVO**.
- ✓ **No apparent differences** were observed between **aflibercept and ranibizumab** regarding endophthalmitis occurrence.
- ✓ **Ongoing pharmacovigilance and aseptic technique** remain essential to ensure safe clinical practice.



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