

# Aflibercept vs. Laser Photocoagulation vs. Observation for Diabetic Macular Edema (DRCR V) - 2019



## Objective

To compare anti-VEGF, laser photocoagulation, and observation as the initial treatment for center-involving diabetic macular edema

## Methods

**Design:** Multi-site RCT

**Sample Size:** 702 eyes

**Treatment Groups:**

- 236 to observation
- 240 to laser photocoagulation
- 226 to aflibercept

**Outcome Measures:**

- Proportion of patients with 5-letter visual acuity decrease at 2 years
- Visual acuity, change in visual acuity, and adverse events

## Results

**Point 1:** There was no significant difference in the proportion of patients with vision loss at 2 years

- 16% of the aflibercept, 17% of laser, and 19% of those with observation ( $P = .79$ ) were noted to have  $>5$  letters of vision loss at 2 years
- Each group had a mean Snellen equivalent of 20/20 at 2 years
- No subgroups (DR severity, central ERM, baseline CST, vitreomacular traction) showed significant difference
- There was a small increase in the proportion of patients that were 20/20 at year 2 for the Aflibercept group (77%) compared to initial observation (66%) ( $P = 0.03$ ); this was not true for Aflibercept versus laser

**Point 2:** Aflibercept still played a notable role for patients with worsening edema

- 80 observation-group eyes (34%) and 60 laser-group eye (25%) received aflibercept during the study

**Point 3:** There was no significant difference in major adverse events between the 3 groups

- No significant differences in adverse events ( $P=0.28$ ), frequency of at least 1 serious event ( $P=0.66$ ), or hospitalization ( $P=0.45$ )

**TLDR: It is appropriate to manage center-involving diabetic macular edema with observation rather than Aflibercept or Laser**