

INTRAVITREAL BEVACIZUMAB IN WET-AGE RELATED MACULAR DEGENERATION

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BACKGROUND

No head-to-head clinical trials have been published comparing aflibercept and bevacizumab for the neovascular form of age-related macular degeneration (AMD). Adjusted indirect comparisons may provide useful information on the relative efficacy of competing interventions.

PURPOSE

To compare the efficacy of aflibercept and bevacizumab for the treatment of wet AMD using an adjusted indirect comparison.

MATERIAL AND METHODS

Pubmed was searched for randomized controlled trials (RCTs) comparing aflibercept or bevacizumab with ranibizumab.

SELECTION CRITERIA

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|---|---|
| 1 | Phase III RCTs. |
| 2 | Intravitreal aflibercept 2.0 mg (every two months after three consecutive monthly doses) versus monthly intravitreal ranibizumab 0.5mg. |
| 3 | Monthly intravitreal ranibizumab 0.50 mg versus monthly intravitreal bevacizumab 1.25 mg. |
| 4 | Patients included with active choroidal neovascularization secondary to AMD. |
| 5 | Similar duration and methodology. |

- A **meta-analysis** of RCTs comparing aflibercept versus ranibizumab and bevacizumab versus ranibizumab was performed. ARR and 95% confidence intervals for dichotomus data were calculated by **Mantel-Haenszel's method**.
- An **adjusted indirect comparison** by **Bucher's method** using the ITC software from Canadian Agency for Drug Technologies in Health was done, with ranibizumab as a common comparator.
- The **endpoint** was the proportion of patients who improved by ≥ 15 ETDRs letters at 52 weeks.

RESULTS

Two RCTs comparing aflibercept with ranibizumab (**VIEW-1 and VIEW-2**) and two RCTs comparing bevacizumab versus ranibizumab (**CATT-1 and CATT-2**) met the inclusion criteria.

Meta-analysis showed lack of significant differences between aflibercept and ranibizumab (**ARR:1,50% [-3,79 to 6,73]**) or bevacizumab and ranibizumab (**ARR:2,0% [-9,0 to 4,0]**).

The adjusted indirect comparison didn't show a statistically significant difference between aflibercept and bevacizumab (**ARR:3,0% [-4,90 to 10,90]**).

CONCLUSIONS

- **Notwithstanding the limitations of an adjusted indirect comparison, it didn't found significant differences between aflibercept and bevacizumab in wet AMD.**
- **Until head-to head trials are available, adjusted indirect comparisons based on trial data could be relevant to guide therapeutic choices.**