Ranibizumab vs. Verteporfin PDT for neovascular AMD (ANCHOR) - 2006

Objective

To evaluate the efficacy and adverse events profile of ranibizumab in treating predominantly classic subfoveal choroidal neovascularization (CNV) secondary to age-related macular degeneration (AMD).

Methods

Design: Double-masked RCT

Sample Size: 423

- Patients with predominantly classic, subfoveal CNV not previously treated with PDT or antiangiogenic drugs

Treatment Groups:

- 143 to verteporfin PDT
- 140 to 0.3-mg ranibizumab
- 140 to 0.5-mg ranibizumab

Outcome Measures:

- % of patients losing <15 letters
- Visual acuity in treatment eye after 12- and 24-months
- CNV lesion characteristics
- Adverse event monitoring

Results

Point 1: Ranibizumab preserved and improved VA compared to PDT

- At 12 months, 64.3% of PDT patients lost fewer than 15 letters compared to 94.3% and 96.4% in the 0.3 mg and 0.5 mg Ranibizumab groups
- At 24 months, 65.7% of PDT patients lost fewer than 15 letters compared to 90.0% and 89.9% in the 0.3 mg and 0.5 mg Ranibizumab groups
- 34.3% of patients in the 0.3-mg and 41.0% in the 0.5-mg ranibizumab group gained >15 letters from baseline VA, compared with 6.3% in the PDT group
- Only 1.4% of patients in the 0.3-mg group and none in the 0.5-mg ranibizumab group suffered severe (>30 letter) vision loss from baseline, compared to 16.1% of patients in the PDT group

Point 2: Ranibizumab improved angiographic lesions

- Total area of CNV remained stable and classic CNV decreased in both ranibizumab groups, while both increased in the PDT group

Point 3: Ranibizumab showed no increase in adverse events

- Serious ocular adverse events (endophthalmitis, uveitis, vitreous hemorrhage, etc.) had similar rates in the PDT (7.7%), 0.3-mg ranibizumab (7.3%), and 0.5-mg ranibizumab (9.3%) groups

TLDR: Ranibizumab demonstrated substantial clinical benefit over standard PDT treatment in patients with age-related macular degeneration with predominantly classic CNV

Brown DM, Michels M, Kaiser PK, Heier JS, Sy JP, Ianchulev T; ANCHOR Study Group. Ranibizumab versus verteporfin photodynamic therapy for neovascular age-related macular degeneration: Two-year results of the ANCHOR study. Ophthalmology. 2009 Jan;116(1):57-65.e5. doi: 10.1016/j.ophtha.2008.10.018. PMID: 19118696.

Brown DM, Kaiser PK, Michels M, Soubrane G, Heier JS, Kim RY, Sy JP, Schneider S; ANCHOR Study Group. Ranibizumab versus verteporfin for neovascular age-related macular degeneration. N Engl J Med. 2006 Oct 5;355(14):1432-44. doi: 10.1056/NEJMoa062655. PMID: 17021319.