



COMPARISON OF AGE-RELATED MACULAR DEGENERATION TREATMENTS TRIALS (CATT)



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Discuss the CATT trial. What were the objectives, design, conclusions and implications of the trial in respect of anti-VEGF agents? 2+(2+2+2+2) D2014, October 2017 FAT

- **Objectives-** To describe effects of RBZ and bevacizumab when administered monthly or as needed for 2 years and to describe the impact of switching to as-needed treatment after 1 year of monthly treatment.
- **Design-**
 1. It was a prospective, multicenter, single blind, non-inferiority randomized clinical trial.
 2. A total of 1208 patients with neovascular AMD were enrolled from February, 2008 and randomly assigned to receive intravitreal injections of RBZ (0.5 mg/0.05 ml) or bevacizumab (1.25 mg/0.05 ml) on either a monthly schedule or as needed with monthly evaluation.
 3. At enrolment, patients were assigned to 4 treatment groups defined by drug (RBZ or bevacizumab) and dosing regimen (monthly or as needed). Only a single eye in each patient was analyzed.
 4. At 1 year, patients initially assigned to monthly treatment were reassigned randomly to monthly or as-needed treatment, without changing the drug assignment
- **Study Measures**
 - The primary outcome was the mean change in visual acuity at 1 year, with a non- inferiority limit of 5 letters on the eye chart.
- **Results**
 - **At 1 year—**
 1. Bevacizumab administered monthly was equivalent to RBZ administered monthly, with 8.0 and 8.5 letters gained, respectively.
 2. Bevacizumab administered as needed was equivalent to RBZ as needed, with 5.9 and 6.8 letters gained, respectively.
 3. RBZ as needed was equivalent to monthly RBZ,
 4. The comparison between bevacizumab as needed and monthly bevacizumab was inconclusive
 - **At 2 years—**
 1. Mean gain in visual acuity was similar for both drugs
 2. Switching from monthly to as-needed treatment resulted in greater mean decrease in vision during year 2
 3. Rates of death and arteriothrombotic events were similar for both drugs
- **Conclusions and implications**
 1. At 1 year, bevacizumab and RBZ had equivalent effects on visual acuity when administered according to the same schedule. RBZ given as needed with monthly evaluation had effects on vision that were equivalent to those of
 2. RBZ administered monthly.
 3. Differences in rates of serious adverse events require further study.
 4. RBZ and bevacizumab had similar effects on visual acuity over a 2-year period. Treatment as needed resulted in less gain in visual acuity, whether instituted at enrolment or after 1 year of monthly treatment.
 5. There were no differences between drugs in rates of death or arteriothrombotic events.
 6. The interpretation of the persistence of higher rates of serious adverse events with bevacizumab is uncertain because of the lack of specificity to conditions associated with inhibition of VEGF