MARKETING

Novartis calls off 3 Beovu trials testing more frequent dosing on concerns of vision-threatening side effect

By **Angus Liu** • Jun 1, 2021 11:41am

age-related macular degeneration | drug safety | VEGF | Beovu



Novartis has terminated three clinical trials testing eye drug Beovu at an increased dosing frequency thanks to safety concerns. (Novartis)

The vision-threatening safety risk from Novartis' new VEGF inhibitor Beovu just got even clearer.

Friday, Novartis said it had decided to nix (https://www.novartis.com/news/media-releases/novartis-reports-one-year-results-phase-iii-merlin-study-evaluating-beovu-every-four-week-dosing-and-provides-update-beovu-clinical-program) three Beovu trials early after an interim analysis of the phase 3 Merlin study found increased rates of inflammation of the eyes in patients who got Beovu compared with those who received Regeneron and Bayer's rival Eylea.

The Merlin trial, as well as the Raptor and Raven studies, were testing Beovu given every four weeks. The drug currently carries an FDA label for dosing every eight to 12 weeks after three initial monthly loading doses.

Novartis said it has communicated the data to health authorities and will seek an update to the Beovu label. It will also amend the protocols of other ongoing Beovu trials to remove the four-week dosing intervals for the maintenance phase.

Novartis launched the Merlin trial to see if the more frequent dosing could help age-related macular degeneration patients who still have unresolved retinal fluid despite anti-VEGF therapy. On the efficacy front, 6 mg monthly Beovu matched up to 2 mg monthly Eylea in change in visual acuity after one year of treatment. The drug also bested Eylea on some anatomical secondary endpoints, Novartis said.

RELATED: **'Lightning struck': How a safety alert shifted doctor sentiment on Novartis' Beovu** (https://www.fiercepharma.com/pharma/lightning-struck-how-a-safety-alert-shifted-doctor-sentiment-novartis-beovu)

But Beovu doubled the rate of intraocular inflammation compared with its rival, with 9.3% percent of patients suffering the complication in the Beovu trial arm. That compared with 4.5% for Eylea. None of the Eylea patients developed reginal vasculitis or retinal vascular occlusion, while those side effects happened in 0.8% and 2% of Beovu patients, respectively. The problem could potentially damage a person's vision.

In Merlin, the rate of vision loss from any cause was 4.8% for Beovu patients and 1.7% for Eylea patients.

"These data help inform our trials moving forward, so we can best determine how appropriate patients can benefit most from this important medicine," John Tsai, M.D., Novartis' chief medical officer, said in a statement.

Shortly after Beovu's launch in late 2019, the American Society of Retina Specialists raised the risk of the potential vision-damaging safety problem in a communication to its member doctors. Novartis later confirmed it through its own internal investigation.

RELATED: **Novartis' hot new eye drug Beovu tied to potential vision loss: experts** (https://www.fiercepharma.com/pharma/retinal-society-flags-serious-side-effect-for-novartis-beovu)

The safety flag essentially deprived Beovu's chance at challenging Eylea. Novartis previously had high hopes for the drug as it matched Eylea in best-corrected visual acuity and showed it could consistently dry retinal fluid. Now, though, the drug has almost disappeared from Novartis' public discussions about its financial performance. And with the latest safety finding, Novartis will likely have a hard time restoring confidence in Beovu.

In the first quarter, Beovu only pulled in $39 million in sales, a 44% decline over the prior year thanks to the safety scare and the pandemic's constraint on the overall ophthalmology market. That's compared with Eylea's 15% U.S. sales boost during the same period to $1.35 billion.

The company has yet to identify the root cause behind Beovu's safety problem.

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