- I'm David Lanfear, I am a Professor and Head of Advanced Heart Failure at Henry Ford Hospital in Detroit, and the title of the study was "The Effect of Omecamtiv Mecarbil in Black Patients With Heart Failure and Reduced Ejection Fraction".

Importance of this subgroup analysis

This is a subgroup analysis of GALACTIC-HF trial. And the reason this is important is that black patients are historically underrepresented in biomedical research. In particularly, in clinical trials. And this includes pivotal clinical trials in heart failure. And there are clear examples where there's heterogeneity of treatment effect of medications across race. And this has also been a part of uncertainty for some key medications, particularly when the original clinical trials didn't enrol enough patients to kind of, more clearly define benefit. And so, in addition to those factors, African-Americans are at higher risk than their white counterparts to develop heart failure and seem to be associated also with having worse outcomes. So, it's important to have new therapies that can be applied to black patients. And also to make sure that enough black patients are enrolled in clinical trials so that we're confident about the results. That it can be generalised. GALACTIC-HF was a randomised clinical trial of omecamptiv mecarbil, which is a first-in-class myosin activator that basically increases the actin-myosin interaction and increases the force of contraction and, actually increases systolic ejection time and ejection fraction. So it works completely differently than all of our other therapies, in fact. The overall trial, the overall GALACTIC-HF trial met its primary endpoint, which was, time to first heart failure event or cardiovascular death. And this is, the current study, the subgroup analysis in black patients.

Study design and patient population.

GALACTIC-HF was a global Phase Three randomised clinical trial. And what we did was a subgroup analysis of all black patients in the trial, comparing omecamptiv mecarbil to placebo, and looking at the trial outcomes. The primary outcome being time to first heart failure event or cardiovascular death. And then we also did another analysis where we actually compared the omecamptiv impact in black patients to white patients. That analysis, we restricted to countries with a substantial black enrollment, which we defined as at least 10 black patients. And that turned out to be Brazil, the United States and South Africa. And so then we compared omecamptiv's effect in black and white patients to look for any heterogeneity there.

Key findings

So, amongst black patients omecamptiv mecarbil had a non-significant, but a strong trend towards benefit with a hazard ratio of 0.82. So about an 18% reduction in the risk of first heart failure event or cardiovascular death. And looking at this, it was driven mostly by heart failure events, particularly hospitalisation. There was a 20% reduction in hospitalisation, risk of hospitalisation, but not really much difference in cardiovascular deaths. Now, the overall, it was not statistically significant, the p-value was 0.1. So the confidence interval just crossed unity. But this is somewhat underpowered, but, I think the effect estimate of 0.82 for the primary outcome is really quite good. To put this in context, the overall trial hazard ratio was 0.92. So about an 8% reduction. Whereas, in black patients, the effect estimate was 18% reduction. So, when we compared to white patients from the same countries, there was no statistically significant difference in terms of the reduction in risk. Again, this is somewhat underpowered based on that it's a subgroup analysis. There was an interaction in terms of blood pressure change where we actually saw an increase in blood pressure in black patients that was not seen in white patients.

Impact on practice and further research

I think the way this should be interpreted is that the effect of omecamptiv mecarbil is, at least as good in black patients compared to others in the trial. And, so that if this drug becomes approved for use, one could use it with confidence across different race groups. And, in terms of further research, you would need more info, more data to examine if there's any other interactions or what's mediating this. I think a question that we will get into is whether there's any differences in baseline characteristics that are mediating any possible differences. But overall, the medication looks effective. And, by the way, the safety profile was excellent in both groups with no association of the drug with any safety events in either black or white patients.

Take-Home Messages

In GALACTIC-HF, omecamptiv mecarbil met its primary endpoint and this analysis shows us that that effect looks at at least consistent, if not better, amongst black patients. And so providers can think about this new therapy without regard to race.