

## **Title: HF 22: CLOROTIC: Combined Loop With Thiazide Diuretics in Pts With Decompensated HF**

**Participant: Dr Joan Carles Trullas**

**Date: 23 May 2022**

Dr Trullas: My name is Joan Carles Trullas. And I am a specialist in internal medicine, and I work in the Hospital of Olot County, and which is in Girona North of Spain. I am also lecturer in the school of medicine at the University of Vic in Barcelona. And I also belong to the Heart Failure Working Group of the Spanish Society of Internal Medicine. And I'm going to talk you about preliminary results of the CLOROTIC trial. Which is a trial that investigates the different diuretic strategies.

### **Background**

Dr Trullas: There are very few prospective trials evaluating safety and efficacy of diuretic strategies. And this is the reason why most guidelines and recommendations are based on expert opinion because there are few randomised chemical trials. But in this context when patients are exposed to loop diuretics chronically, some patients may present diuretic resistance. And some subset of these patients can persist with fluid overload. Despite you increase the doses of loop diuretics. One possible approach to overcome this theoretical resistance is the addition of a second class of diuretics. And in this case a TSI type diuretic. But this strategy has not been tested in large scale clinical trials.

### **Patient Cohort and Study Design**

Dr Trullas: For this trial, this is a randomised double blind placebo control trial perform at 26 sites in Spain. And we recruited 230 patients with a history of chronic heart failure admitted for an acute decompensation. Despite receiving treatment at home with oral furosemide at the minimum dose of 80 milligrammes per day. And these patients were randomised within the first 24 hours of hospital admission to receive oral treatment with hydrochlorothiazide or placebo.

## Combined Diuretic Therapy

Dr Trullas: All patients were treated with pre-specified algorithm for furosemide treatment that was provided to all investigators to standardise its use between different sites. And in addition to this pre-specified furosemide intravenous treatment patients were assigned to two arms. One arm was hydrochlorothiazide, oral hydrochlorothiazide, and the other side was placebo. And we wanted to test if combined diuretic therapy was superior to placebo or furosemide alone with placebo to improve the diuretic response in these patients.

## Key Findings

Dr Trullas: According to the primary endpoint, we found that the patients assigned to hydrochlorothiazide were more likely to lose weight than those assigned to placebo 72 hours after randomization. And these were, these results were statistically significant and there was also a trend towards better scores for the this the assessment for these patients. But in this case, the results were not statistically significant.

We also assessed the same endpoint a secondary endpoint at day five after randomization. And we obtain the same result with more weight loss for the patients assigned to the treatment.

Another important thing is that as a secondary endpoint we included the metrics of diuretic response and we observed that patients assigned to the treatment group, hydrochlorothiazide, also improved all the metrics of diuretic response. And furthermore, I think it's important that it was a safe strategy. Because in the safe TM points, we didn't see safety concerns using combined diuretic therapy in comparison with furosemide alone. So, this is, I think it's important to demonstrate efficacy but also safety of this strategy.

## Conclusions

Dr Trullas: In patients with chronic heart failure who are decompensated despite treated with oral furosemide, we didn't know with, we didn't have the evidence. Which is the second first line agent, diuretic agent. Some expert recommend TSI diuretics but we didn't have the evidence.

But now we think that at the light of this result we have the evidence to recommend as first last line a second diuretic agent hydrochlorothiazide. And maybe we can change clinical practise in this situation. I hope so.

## Further Research and Next Steps

Being aware of more clinical trials with diuretics which are really scarce in the literature. But we hope to continue this line of research and doing more research in diuretic therapy in the future.