

**Title: ESC 23: CASTLE-HTx: Catheter Ablation for AF in Pts with Heart Failure**

**Participants: Dr Phillip Sommer and Dr Christian Sohns**

**Date: 28<sup>th</sup> August 2023**

**Dr Phillip Sommer**

"Yeah. My name is Philip Sommer. I'm director of the clinic for electrophysiology at the Heart and Diabetes centre in North Rhine-Westphalia, Germany.

**Dr Christian Sohns**

My name is Christian Sohns. I'm the deputy director of the Heart and Diabetes Centre, North Rhine-Westphalia in Germany. We work together and we designed the trial together.

**Unmet Needs of End-Stage HF Patients?**

**Dr Christian Sohns**

This is a very good question. We have already good information about patients with heart failure and reduced or preserved ejection fraction. But these patients who are very close to transplantation or surgical therapy, they are left without any good evidence or recommendations from prospective randomized studies, for example. And therefore this is very important to address these questions, for these patients, to give them good advice, evidence-based advice.

**Patient Population and Study Design**

**Dr Phillip Sommer**

So with this study, we addressed, as Christian said, end-stage heart failure patients. That means patients that were basically admitted to our highly specialized centre for evaluation of eligibility for undergoing a heart transplant. So in those patients, most other options actually have been attempted. So medical treatment was almost optimal if necessary. A CRT, for example, was implanted. But still, those patients were in New

York heart two, three and four. So, like, two-thirds of them were in New York heart three and four, and they were very significantly limited in their daily routines. And the issues that we addressed was whether an ablation therapy to treat their atrial fibrillation, which all of those patients had, would kind of give them some sort of benefit in order to improve their clinical status and their physical fitness.

## **Key Findings**

### **Dr Christian Sohns**

So, yeah, we have primary endpoints and secondary endpoint. The primary endpoint was a composite of mortality, death from any cause, left ventricular assist device implantation and heart transplantation. And on the other hand, we have death from any cause, cardiovascular death, and all the other single points from the primary endpoint as well. So catheter ablation improved all these endpoints, it improved the composite of death from any cause, LVAD implantation, and transplantation. And this was mainly driven by the reduction of death from any cause. This was mainly driven by the reduction of cardiovascular death. So all these points are very important. Also taken into consideration that one day surgical therapy will come to these patients anyway. But if we can postpone delay the process until we need this definite surgical therapy, that's very important. So it saves lives and it improves also the quality of life of these patients.

## **Safety Events**

### **Dr Phillip Sommer**

So I don't want to say we were surprised, but actually it is a really end-stage heart failure patient population. And half of those patients, as they were randomized to the ablation arm, perform quite an invasive intervention, which is a catheter ablation of atrial ablation. But at the end of the day, we realized in those roughly 100 patients where we performed ablation, in, no serious adverse events occurred, no complications occurred. So we had in total, I think, four exercise complications with some hematoma in the groin, but nothing really severe in terms of pulmonary vein stenosis, tamponade, stroke, TIA, or

anything that is associated with the sedation of those patients during the procedure. So these were really safe procedures and straightforward procedures and highly effective procedures.

## **Impact on Clinical Practice**

### **Dr Christian Sohns**

As we said, we have no good evidence-based information for these patients. We need to change guidelines; this is clear. And the Atrial Fibrillation guidelines, they need to implement the results from Castle AF and Castle HTX to change the recommendation for Ablation and heart failure patients to class one indication. And also I think we need a revision of the heart failure guidelines. Atrial Fibrillation therapy was not even mentioned in the consensus documents from the ESC and the American Heart Association, and we think that this is very important to add this also to these guideline documents in the future. We have a lot of data which is also not analyzed of this patient cohort. I think it's very important to understand the findings of the study and to see which kind of patient benefit the most and why was this the case. This can be one of the topics, and of course, we have different other topics in the pipeline we cannot address today.