- Hello, I'm Marco Schiavone. I'm actually a young cardiac electrophysiologist working at the Luigi Sacco University Hospital in Milan.

Importance of this analysis

The importance of this analysis on heart failure patients in S-ICD is that we don't have specific data on this kind of population. We just have one trial which is the UNTOUCHED trial that basically show that this device is a very good device in this kind of population. And so with our large retrospective registry, we try to find out if this data were confirmed and actually, if this kind of patients will ever benefit from this device.

Study design and patient population

The study design is retrospective registry which is the largest retrospective registry on the S-ICD in Europe. We basically enrolled 1,400 patients that were all analysed retrospectively.

Key findings

The key findings, are that the key findings of our study are that this device is a device that did not suffer from a higher number of inappropriate shocks, when we compared the heart failure population versus the no heart failure population. So, basically the primary outcome of our study was the rate of inappropriate shocks. So, we included in the HF population, patients the heart failure and reduced and mildly reduced ejection fraction. Then we compared then with no nerve failure population. And we found that in these two, basically cohorts, we did not found the different numbers of inappropriate shocks. As for secondary outcomes, we found that as for device related complications, heart failure patients suffer from a slightly higher number of device related complications but those complications were always or almost always managed in an easy way and so patients did not suffer from a worse outcome in the heart failure population. So, this device is kind of safe and effective in this particular setting.

Take-home messages

The take-home message of our study is that we can actually use this device in heart failure patients, because there's an idea that maybe this device is suitable and very adequate for the young patients not suffering from several comorbidities while often heart failure patients, do need a transvenous device, but this is not completely true and our study confirms that, of course heart failure patients may need CRT in cases of left bundle branch block and need for CRT. Sometimes they also may need pacing. And of course in that case, a transvenous device will be needed. But in all other case when CRT, ATP or pacing is not needed the subcutaneous ICD is a very good device in this kind of setting. And we always have to keep in mind that whenever in the follow up a heart failure patients are going to need for pacing or CRT, you can just extract the S-ICD device without, complications in most cases and you can always upgrade to a transvenous device in the future.

Further Research

Sure, we need further research with the randomised trial that may confirm our study in a prospective and in randomised setting and actually a randomised trial will always be better in results than a retrospective analysis. But I think that we just opened a road for further research and of course even sub-analysis of the PRAETORIAN trial or other randomised trial, will give us a definite answer on the question. Whenever the heart failure setting will be investigated by other groups or also by our groups, sometimes we're going to make a randomised trial.