**Title: DECISION QFR Shows Increased Practicability and Shorter Procedure Time for Revasc.**

**Participants: Dr Taku Asano**

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**Dr Taku Asano**

- Hello, So my name is Taku Asano. I'm working at St. Luke's International Hospital in Tokyo, Japan. Today I'd like to talk about the result of the DESCISION QFR Trial.

**Reasoning Behind This Study**

The reasoning behind the study is that the patient risk assessment considering the coronary anatomy and its physiological significance which is represented by the functional syntax core demonstrated the better capability in predicting the outcomes after the revascularization in patients with multivessel disease, and compared to the one considering only anatomy. However multivessel integration of the FFO may have some difficulty in the catheter laboratory, because it potentially has the vessel injury, and the excess procedure time. The QFR, the quantitative flow ratio which is the FFR simulation that based on the angiographic images, this potentially increase the functions and increase the practicability of the functional syntax score without using the pressure wire or the pharmaceutical hyperimmune. Then we decided to perform this trial, DECISION QFR trial to investigate the feasibility of QFR as a physiological information in heart team discussion determining the optimal treatment strategy.

**Patient Population and Study Design**

The patient population and the study design is that we included the 260 chronic coronary syndrome patients, with multivessel disease including the proximal LAD lesion, and as well for the revascularization, we generated from each patient both the QFR-based information and FFR-based information. Then the two heart teams were randomised to either the QFR-based information or FFR-based patient information. Then determine, then have a virtual heart team discussion and determine their optimal treatment strategy regarding the revascularization. The primary endpoint of the study was level of the agreement of the QFR-based treatment recommendation with the FFR-based treatment recommendation, as a reference.

**Key Findings**

The main result of this study was the agreements between the two heart teams approach, QFR approach. And the FFR approach was observed in 91.5% of the cases, as a primary endpoint, the Cohen's K was 0.73. While the 95% confidence interval was 0.62 to 0.83. Their assumption of the Cohen's K was 0.60, while the lower boundary of the 95% confidence interval was 0.40 , therefore and this trial met the precipice by the primary endpoints. And we compared the QFR measurement procedure time and FFR measurement procedure time, in this secondary endpoint, the QFR achieved the shorter procedure time compared to the FFR procedure time.

**Take-Home Messages**

The key take-home message from this trial is the the heart team decision making based on QFR demonstrated the substantial agreement with the one based on the FFR in patient with multivessel of disease. In this study, we conclude that QFR potentially increased the practicability of the physiology guided decision making in the heart team discussion determining their optimal treatment revascularization.

**Further Research Required**

For further study we need the outcome study because the current study doesn't have the the outcome after the decision making.