Fate of FFR>0.80 and DS>50%:

Preliminary Data from IRIS FFR Registry

Jung-Min Ahn

Heart Institute, Asan Medical Center University of Ulsan College of Medicine





Multicenter, Prospective Registry to Evaluate The Natural History of FFR-Guided Deferred Coronary Lesions

IRIS FFR DEFER Registry

Patients with ≥1 Deferred Target Lesions (DS>50% by visual estimation and FFR>0.80)

Deferred Patients (N=10,000) Imaging Sub-Study (n=1,200)

2 year Clinical F/U 2-year CAG & Imaging FU IVUS VH-IVUS OCT

Primary Endpoint : *Target Vessel Related (TVF)* Cardiac Death, MI, and Clinical driven TVR at 2 year



Patient Enrollment Preliminary Analysis on 2060 Patients With at Least 6month Follow-Up.





Patient Characteristics

| Variables | N=2060 |
|------------------------------------|------------|
| Age | 64.2±9.5 |
| Sex (men) | 1463 (71%) |
| Body mass index, kg/m ² | 24.8±2.9 |
| Diabetes | 655 (32%) |
| Hypertension | 1317 (64%) |
| Current smoker | 528 (26%) |
| Hyperlipidemia | 1294 (63%) |
| Previous myocardial infarction | 131 (6%) |
| Previous stroke | 125 (6%) |
| Chronic renal faliure | 42 (2%) |
| Chronic lung disease | 50 (2%) |
| Peripheral artery disease | 52 (3%) |
| Family history | 232 (11%) |



Clinical Presentation









Lesion Characteristics: All lesion

| Variables | N=3497 |
|----------------------------------|------------|
| Lesion territory | |
| Left main | 197 (5.6%) |
| Left anterior descending artery | 2366 (68%) |
| Left circumflex artery | 1464 (42%) |
| Right coronary artery | 1889 (54%) |
| ACC/AHA B2C lesion | 528 (26%) |
| Long lesion (>20mm) | 1294 (63%) |
| Moderate to severe calcification | 131 (6%) |
| Diameter stenosis | |
| 50-70% | 2345 (67%) |
| 70-99% | 1006 (29%) |
| Total occlusion | 146 (4%) |



ASAN Medical Center

Lesion Treatment







Lesion Treatment





FFR guided DEFERred Lesion

| Variables | N=2047 |
|---------------------------------|------------|
| Lesion territory | |
| Left main | 79 (4%) |
| Left anterior descending artery | 1207 (59%) |
| Left circumflex artery | 672 (33%) |
| Right coronary artery | 893 (44%) |
| Route of adenosine | |
| Intravenous | 1837 (90%) |
| Intracoronary | 210 (10%) |
| Fractional flow reserve | |
| Mean | 0.89±0.06 |
| <0.75 | 33 (2%) |
| 0.75-0.80 | 118 (6%) |
| >0.80 | 1896 (93%) |

Medical Cent

FFR Distribution of Deferred Lesions



Death / MI Revascularization at 2 Year (per patient, n=2,060)



Death and MI at 2 Year (per patient, n=2,060)



CardioVascular Research Found

Preliminary Data, 2014 from IRIS FFR DEFER Registry

Revascularization at 2 Year (per patient, n=2,060)



Preliminary Data, 2014 from IRIS FFR DEFER Registry



Revascularization at 2 Year (per lesion, n=2,506)



CardioVascular Research Foundation

Preliminary Data, 2014 from IRIS FFR DEFER Registry



Deferred Lesion Intervention at 2 Years According to FFR



Deferred Lesion Intervention at 2 Years According to FFR



CardioVascular Research Foundation



Deferred Lesion Intervention at 2 Years According to FFR





CardioVascular Research Foundation

Medical Center

Deferred Lesion Intervention at 2 Years According to % DS



Summary

- The prospective IRIS FFR registry confirmed the safety of the FFR guided DEFERred strategy.
- The rate of cardiac death or MI related with deferred lesion was only 0.7% at 2 years.
- The rate of deferred lesion intervention and FFR value showed the "dose-response" relationship.
- The revascularization was beneficial only in functionally significant stenosis.
- The angiographic diameter stenosis was not predictive of clinical events.
- This analysis was preliminary, and we will provide the complete analysis in the near future.

