VALUE OF ROUTINE POST PCI FFR IN THE IDENTIFICATION AND MANAGEMENT OF ANGIOGRAPHICALLY OPTIMIZED STENTED LESIONS

Poster Contributions
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Background: Fractional flow reserve after stenting (FFR-S) is a predictor of adverse events. We evaluated the value of a routine FFR-S strategy for the identification and management of persistently ischemic lesions (despite angiographic optimization) after stenting.

Methods: Clinical, angiographic and FFR characteristics of consecutive patients undergoing FFR-S following angiographically successful PCI of functionally significant lesions (FFR<0.8) were analyzed.

Results: 534 patients were studied (mean age 63 ± 10 years, 98 % males, 43% diabetics). Pre-PCI stenosis was 72 ± 15% and post -PCI 1 ± 5%. FFR-S was measured after the PCI was considered angiographically satisfactory. Overall, there was significant improvement in lesion hemodynamics, with FFR reduction from 0.65 ± 0.14 to 0.87 ± 0.08(P<0.001). 161(30%) patients had suboptimal FFR-S (0.81±0.09) and underwent a subsequent intervention. [Of these, 111 patients (20.4%) had persistently ischemic FFR-S (<0.8), despite good angiographic results]. After subsequent interventions, including OCT or IVUS evaluation (20%), post dilation (30%), and/or additional stenting (44%), mean FFR-S increased from 0.78 ± 0.08 to 0.87± 0.06 (P<0.001).

Conclusion: Of PCI treated lesions deemed angiographically optimal, post stenting FFR reclassifies approximately 1 out of 5 (20%) as persistently ischemic thereby providing an opportunity for complete functional optimization. FFR-S should be considered to ensure functional optimization of PCI results.