Abstract

Aim of study: to find out the Relationship between angiographic and hemodynamic severity of coronary artery stenoses. 

Background: it can be difficult to determine on the coronary angiogram which lesions cause ischemia. Revascularization of coronary stenosis that induces ischemia improves a patient's functional status and outcome. 

For stenosis that does not induce ischemia, however, the benefit of revascularization is less certain. Fractional flow reserve is an important tool that measure the functional significance of lesions. 

Patients and Methods: twenty three patients with 28 coronary artery stenosis were included in study. Significant anatomical lesion was defined as equal or above 50% diameter stenosis, while non significant lesions were defined as any lesions with diameter stenosis less than 50% of arterial lumen. 

Significant lesions were further subdivided to intermediate lesions (50-70%) reduction in diameter stenosis, and critical lesions with (71-90%) diameter stenosis. Then all grouped lesions assessed by fractional flow reserve in order to determine hemodynamic significance of each lesions. Lesion were considered functionally significant depending on FFR ≤ 0.80 as cut off value. 

Results: in angiographical non significant group lesions only one patient (14%) were functionally significant after assessment by fractional flow reserve. While in intermediate group lesions six patients (40%) were functionally significant with p value 0.243. And in critical lesions five patients (83%) were functionally significant with p value 0.025. 

Of all lesions 12 lesions (42%) were functionally significant 

CONCLUSION: fractional flow reserve is an important tool to influence decision and change strategy of management at catheterization laboratory specially for intermediate lesions and even for sever lesions in a way that may be cost effective.