**EXPANDED USES OF INVASIVE PHYSIOLOGICAL TESTING FOR CLINICAL DECISION- MAKING IN CAD PATIENTS**

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Two newer uses of invasive physiological testing have been recently evaluated, use in ACS and use after successful coronary intervention. Invasive physiological testing using fractional flow reserve (FFR) or instantaneous flow reserve (iFR) is well established for clinical decision-making in stable ischemic heart disease (SIHD) patients. Its use in patients with acute coronary syndromes (ACS) is less certain. Recent studies have demonstrated that the myocardial vascular bed in the non-culprit vessel in ACS patients is intact and physiological testing can be used reliably in the non-culprit vessel. Its use, however, in the “culprit” vessel is less certain due to impairment of the peripheral myocardial vasculature. Further, studies have demonstrated that the threshold for deferral of intervention used for SIHD may not be useful in clinical decision-making in ACS patients. Physiological assessment after coronary intervention has demonstrated that up to one in five stented vessels shows residual ischemia by physiological testing. Furthermore subsequent intervention on these vessels improve results of physiological testing, decreasing vessels showing ischemia to less than 10%. These data suggest the possibility of the routine integration of physiological testing into percutaneous intervention, particularly if a pressure wire can be developed which more approximates the qualities of current “work horse” wires.