

FFR et STEMI :

à quel moment,
pour quelles artères
avec quelles limites ?

GRCl, Paris 7 Décembre 2018

Gilles Rioufol MD, PhD

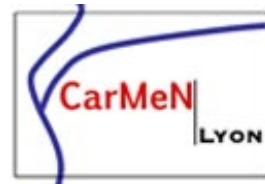
Interventional cardiology dpt
Cardiovascular Hospital - Lyon - France



UNIVERSITÉ
DE LYON

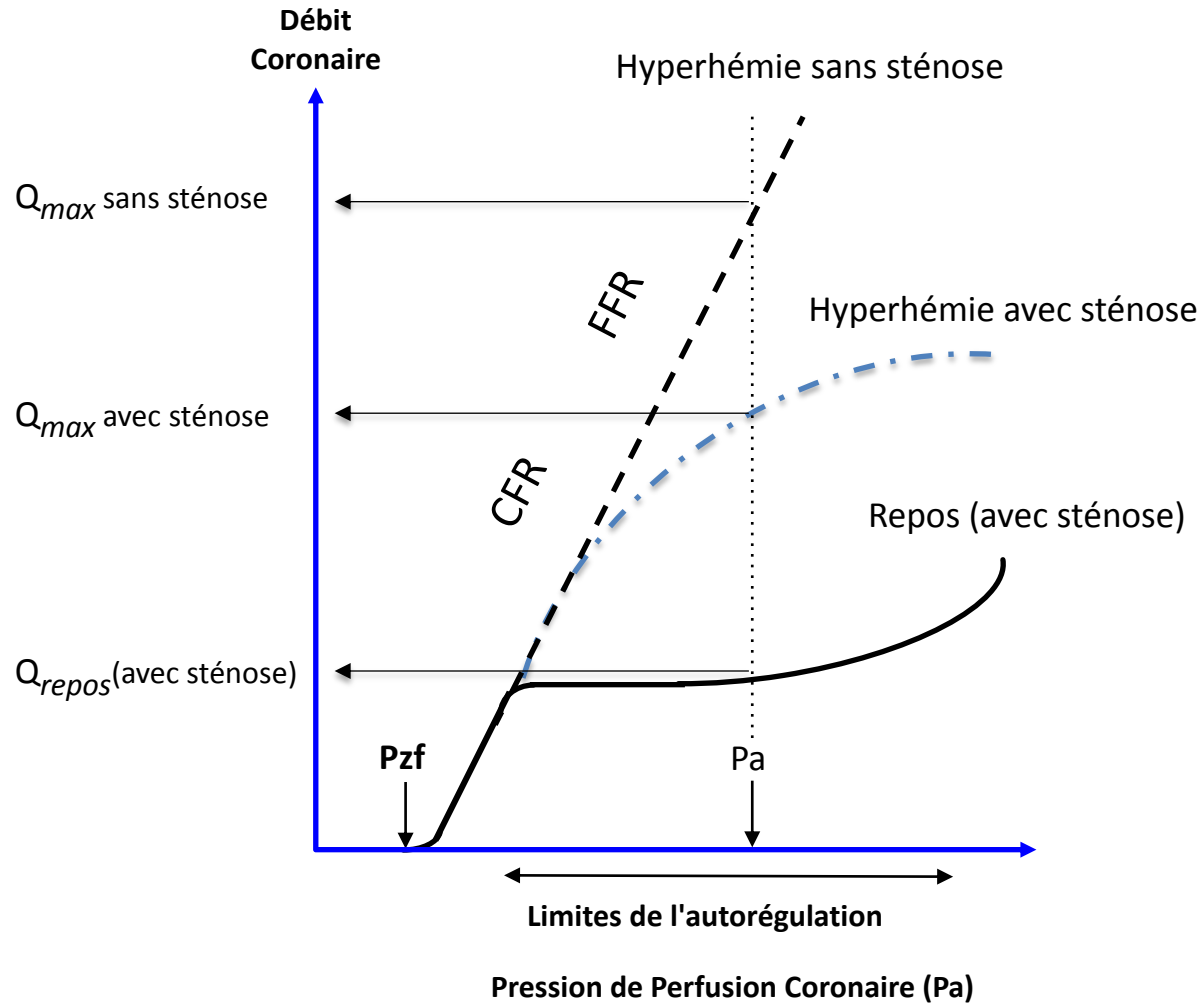
Inserm

Institut national
de la santé et de la recherche médicale



$$CFR = \frac{Q_{max} \text{ avec sténose}}{Q_{repos} \text{ (avec sténose)}}$$

$$FFR \# \frac{Q_{max} \text{ avec sténose}}{Q_{max} \text{ sans sténose}}$$



$$Q = \partial P / R$$

$$Q = (Pa - Pv) / R$$

$$FFR = (Pa^S - Pv / R) / (Pa^N - Pv / R)$$

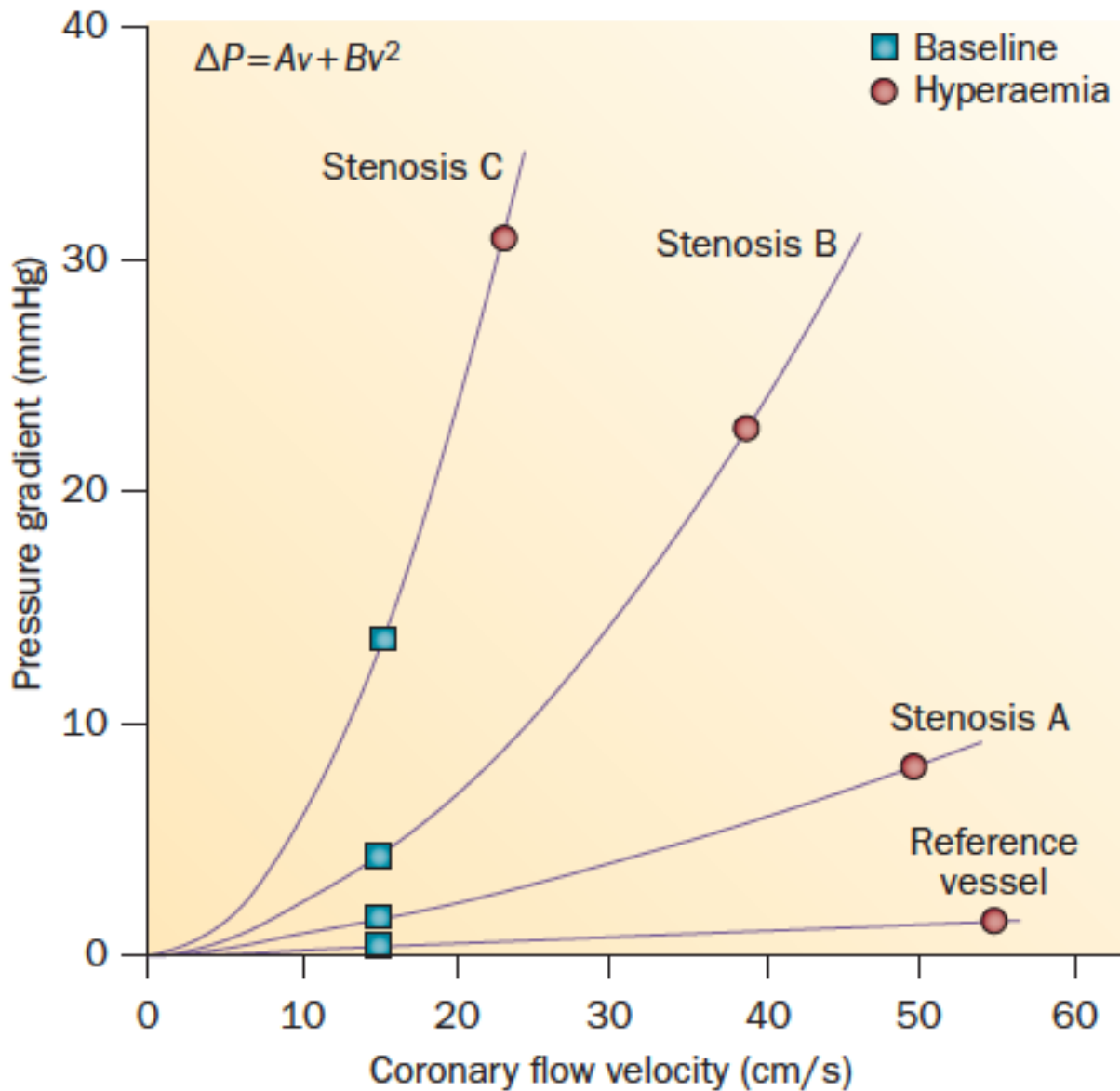
Hyperhémie # R min et stable

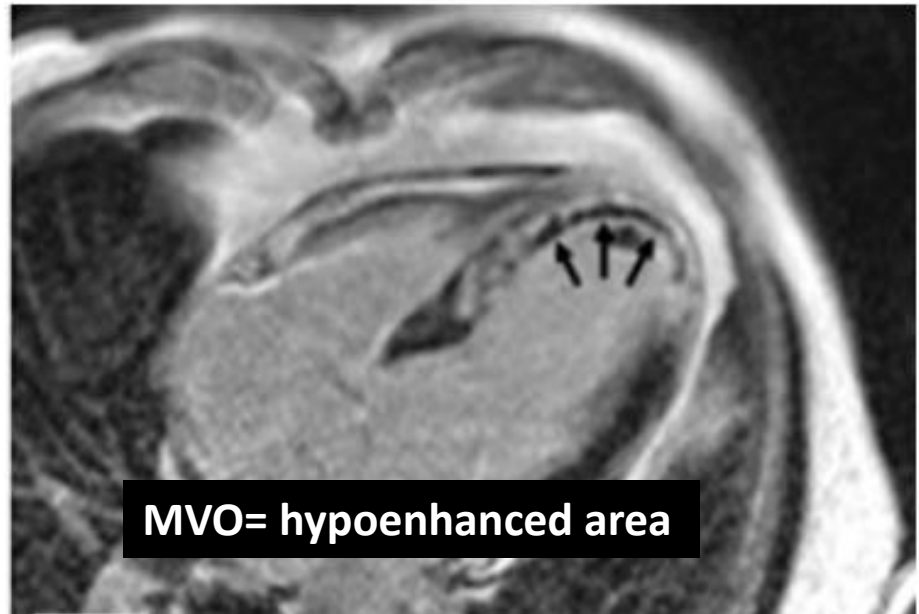
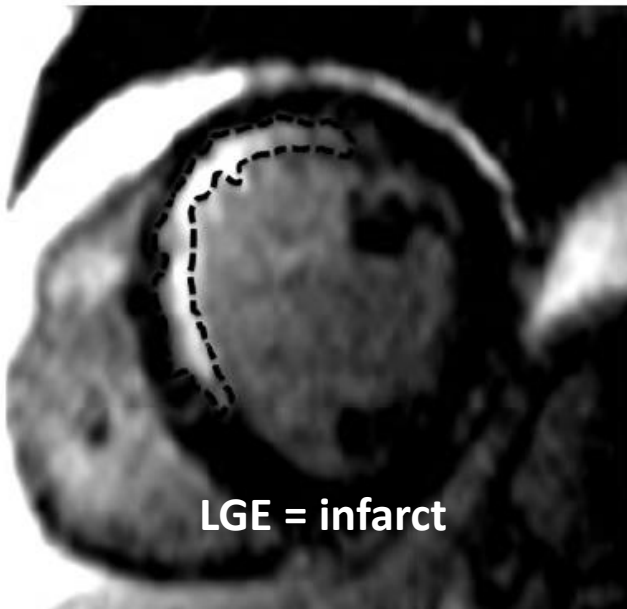
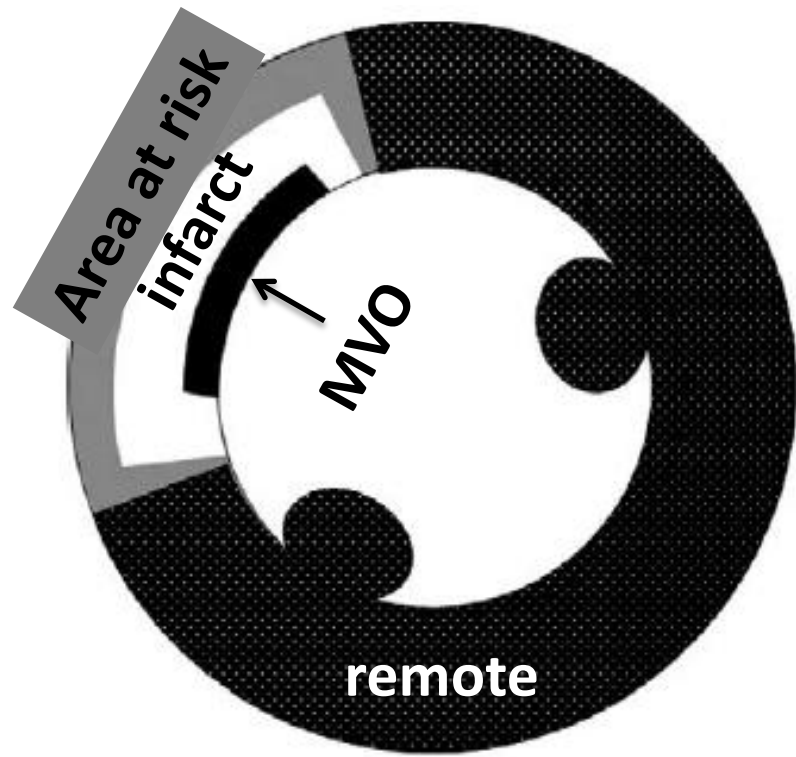
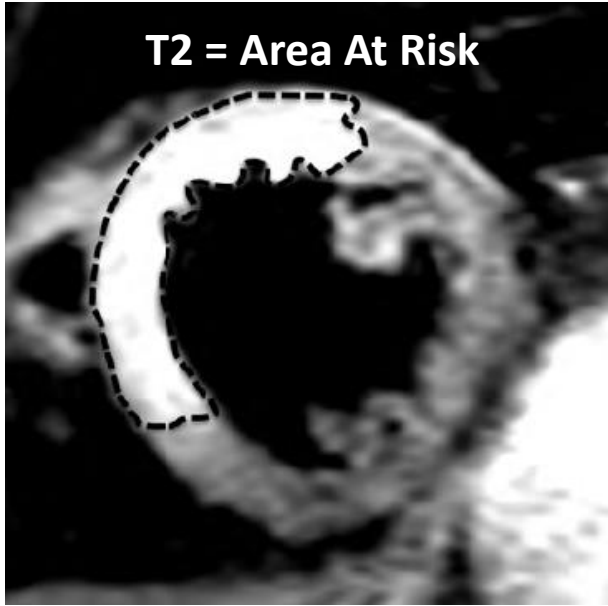
$$FFR = (Pa^S - Pv) / (Pa^N - Pv)$$

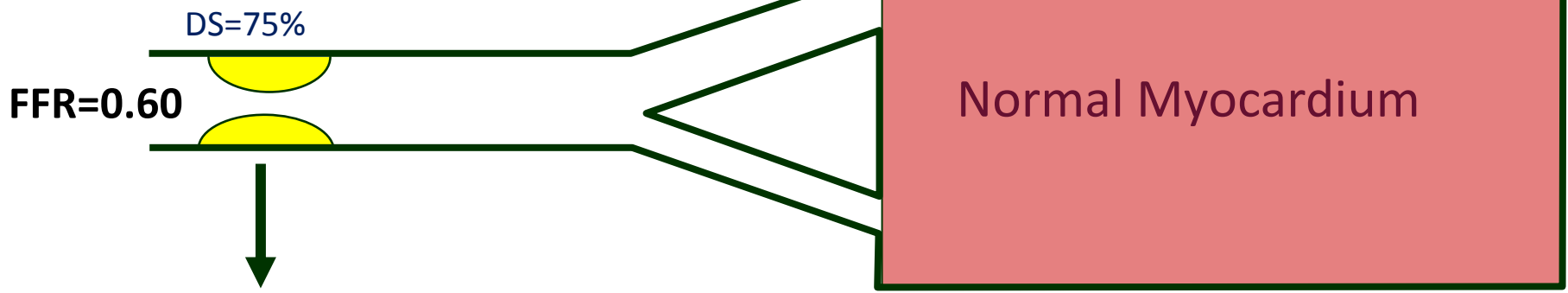
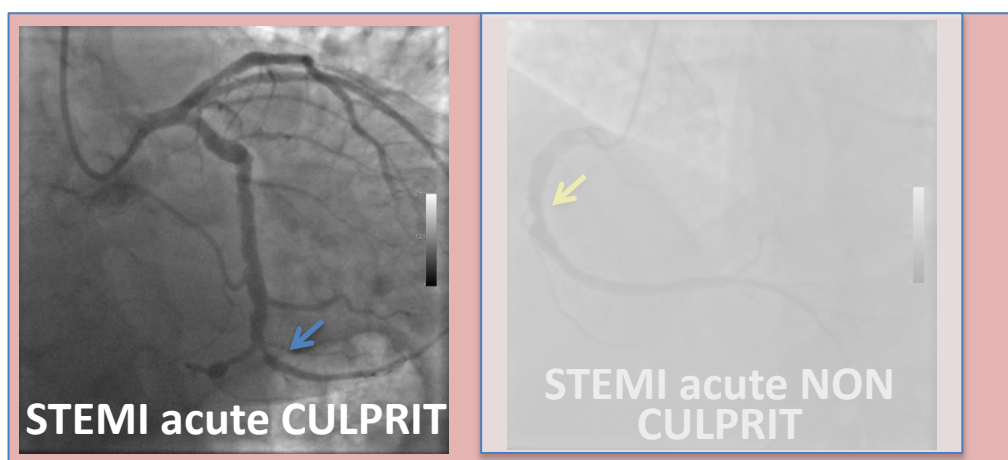
Pv négligeable / Pa

$$FFR = Pa^S / Pa^N$$

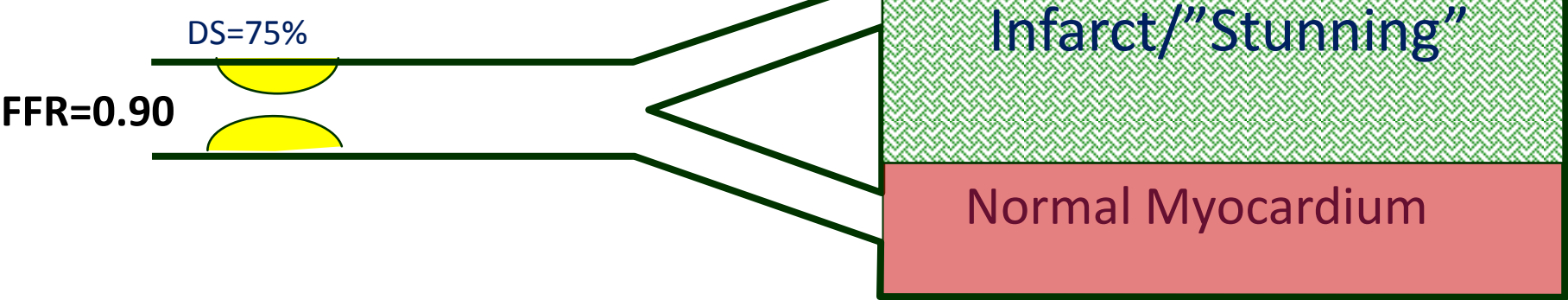
$$FFR = Pd / Pa$$

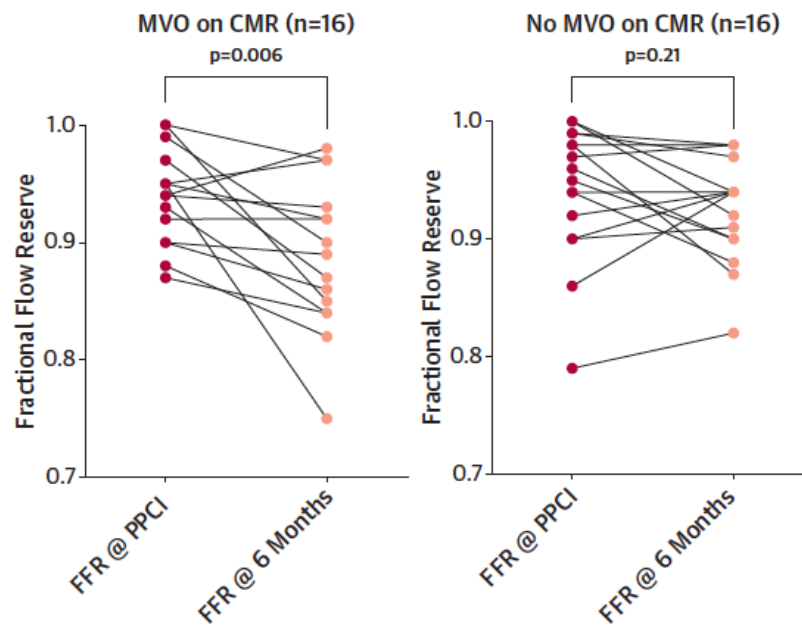
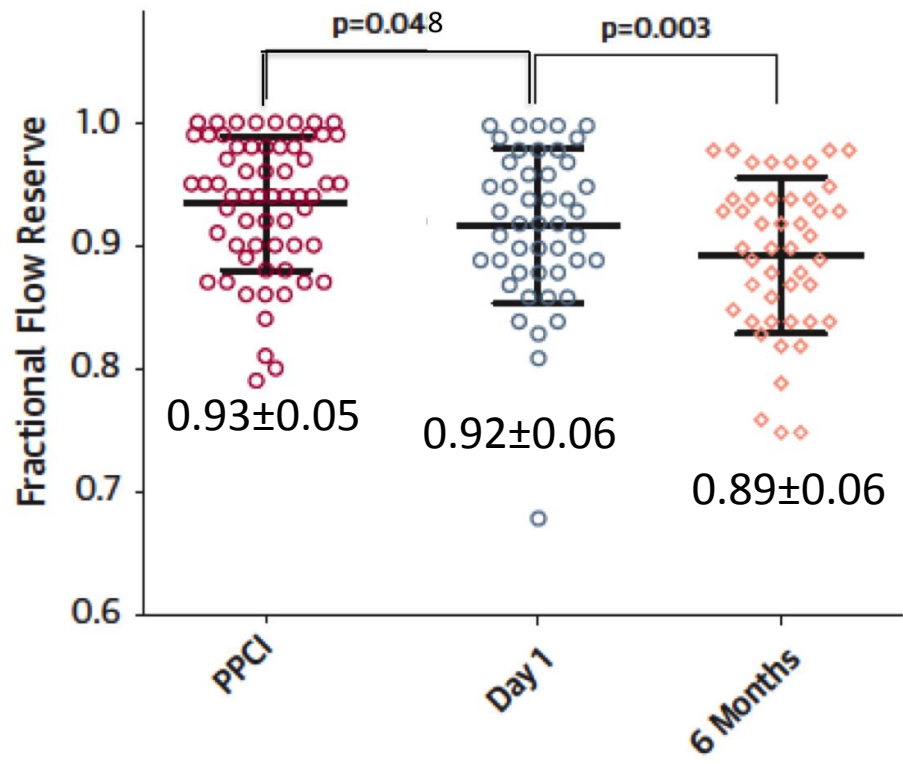


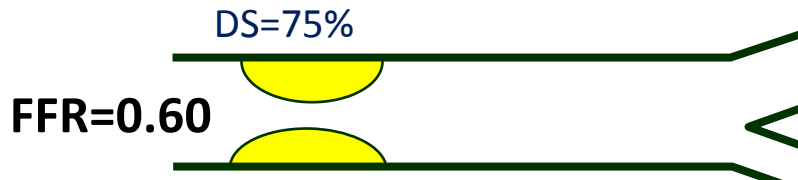
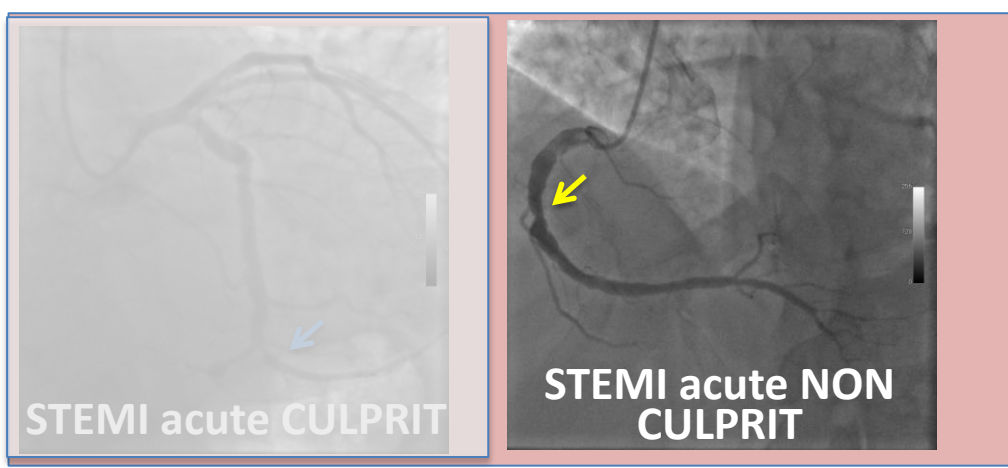




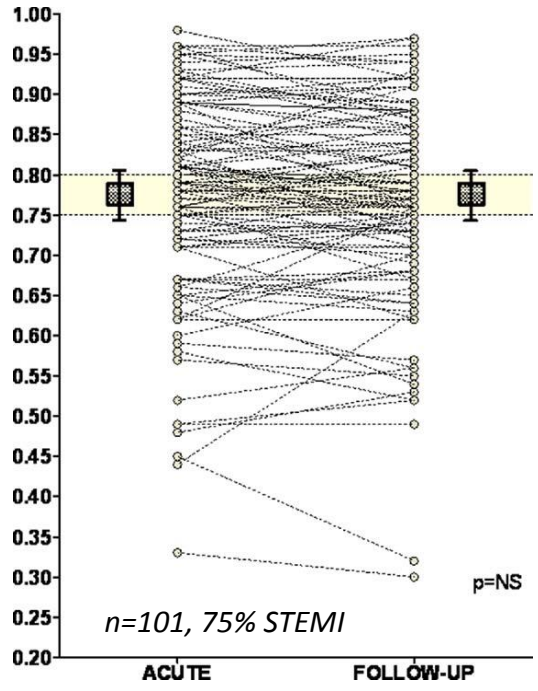
Acute Myocardial Infarction



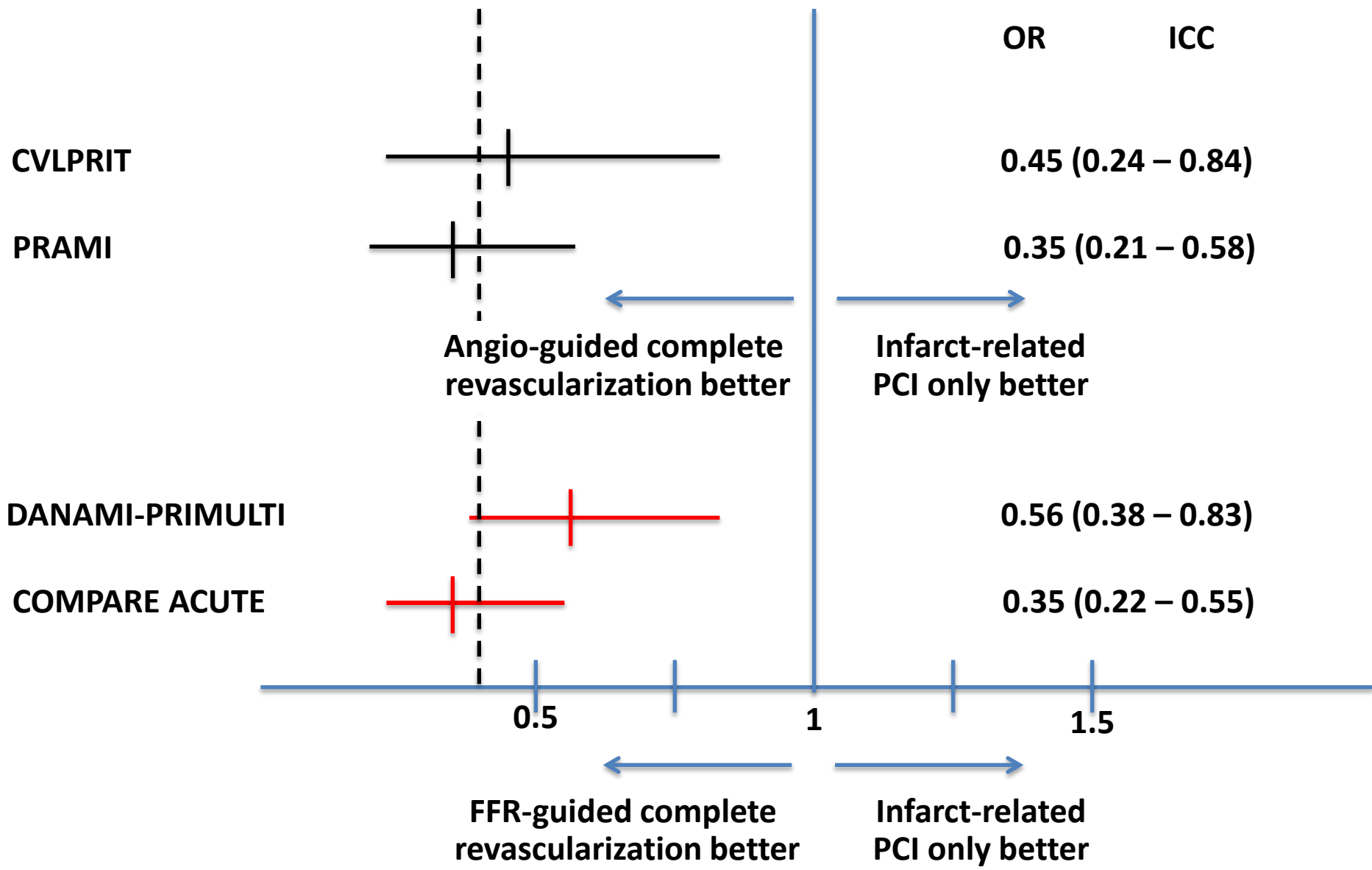




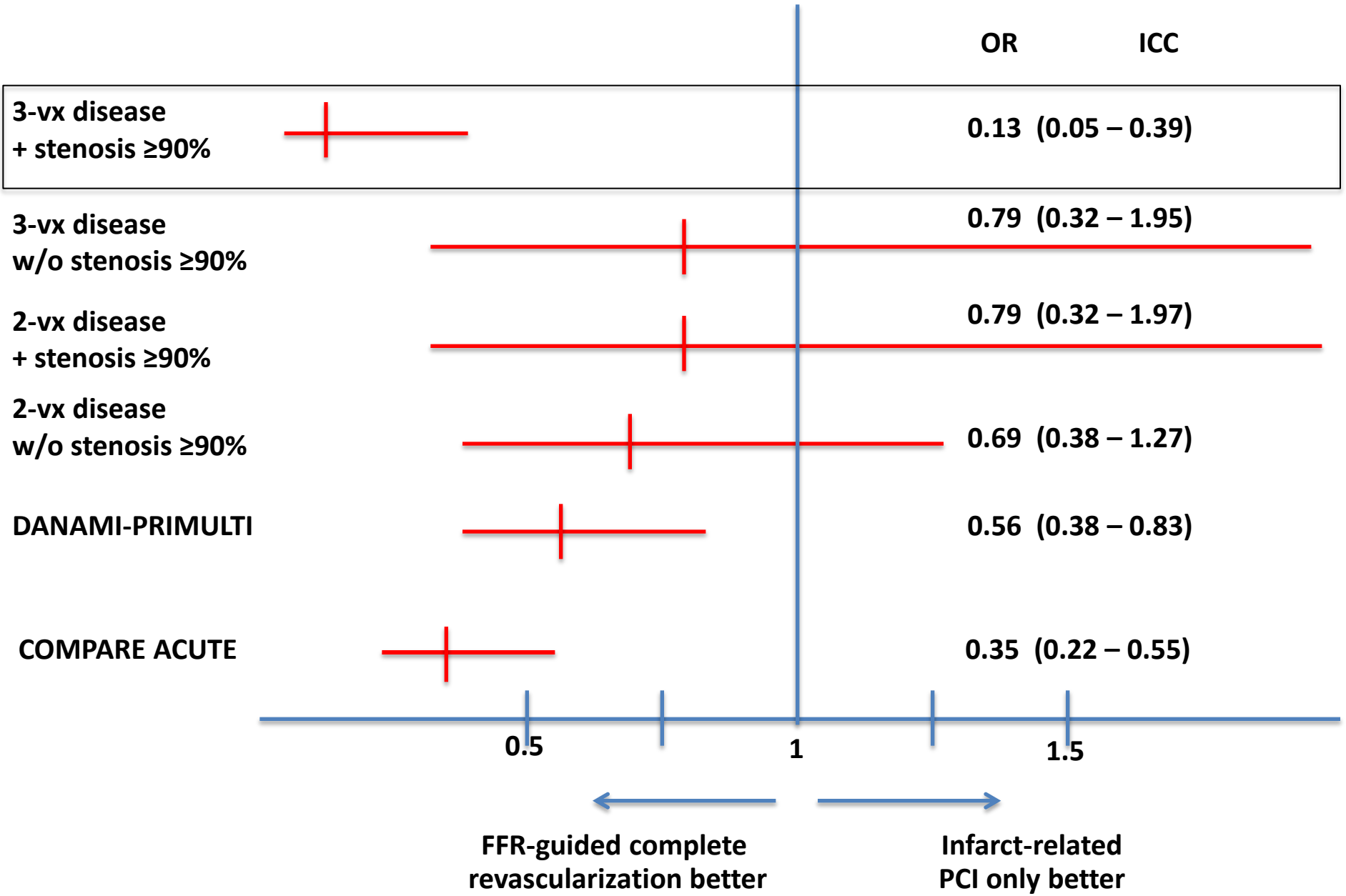
Normal Myocardium

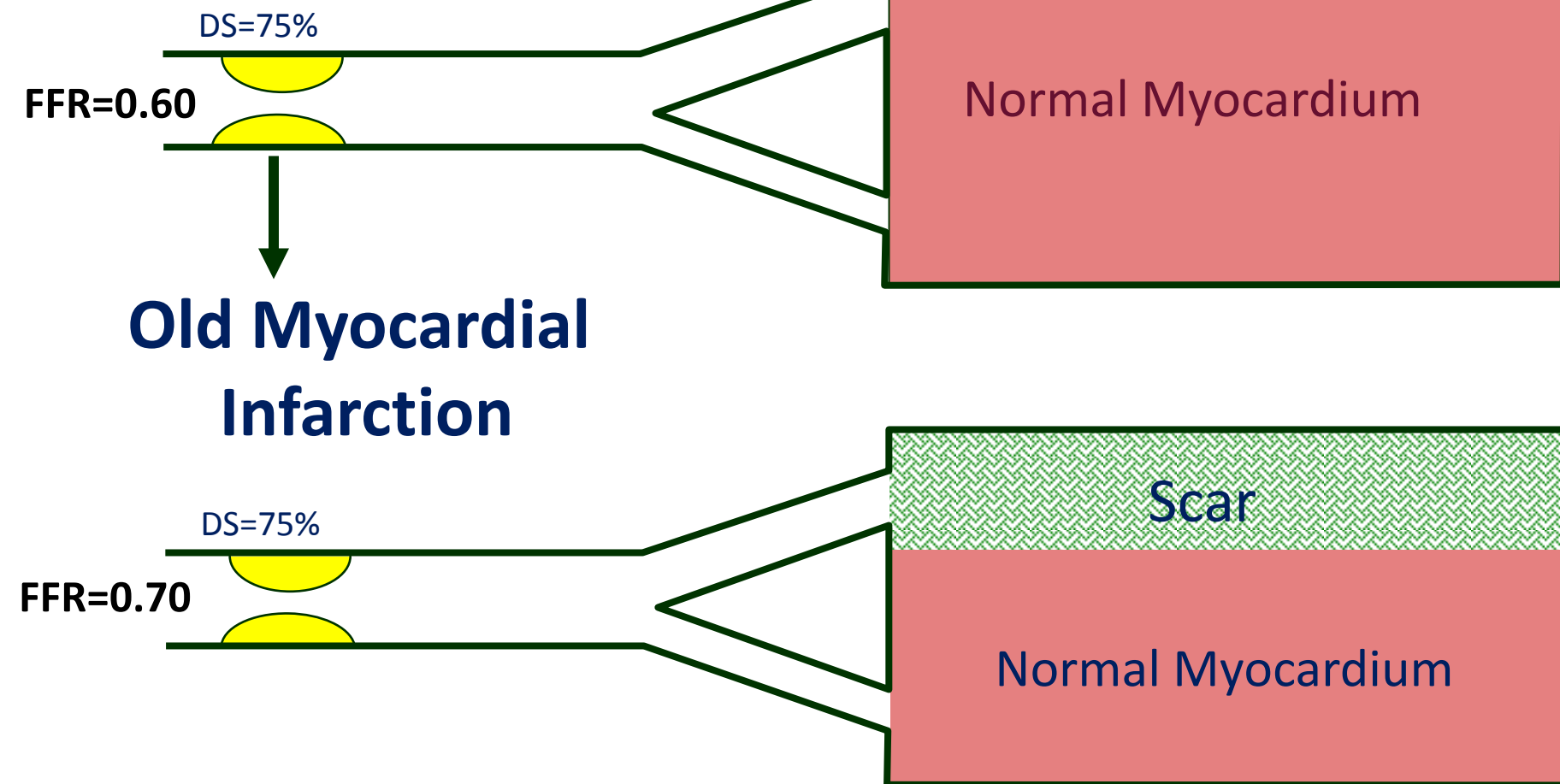
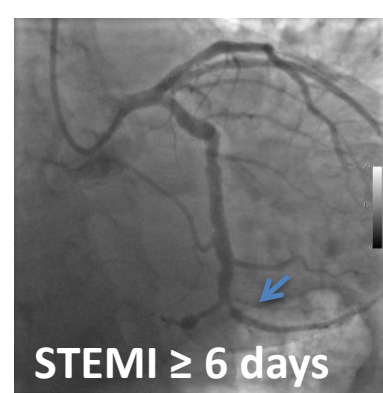
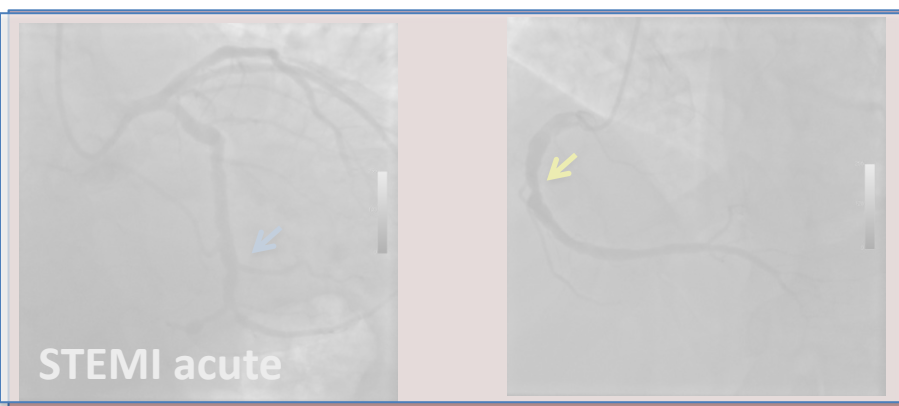


FFR trial: STEMI & multivessel disease

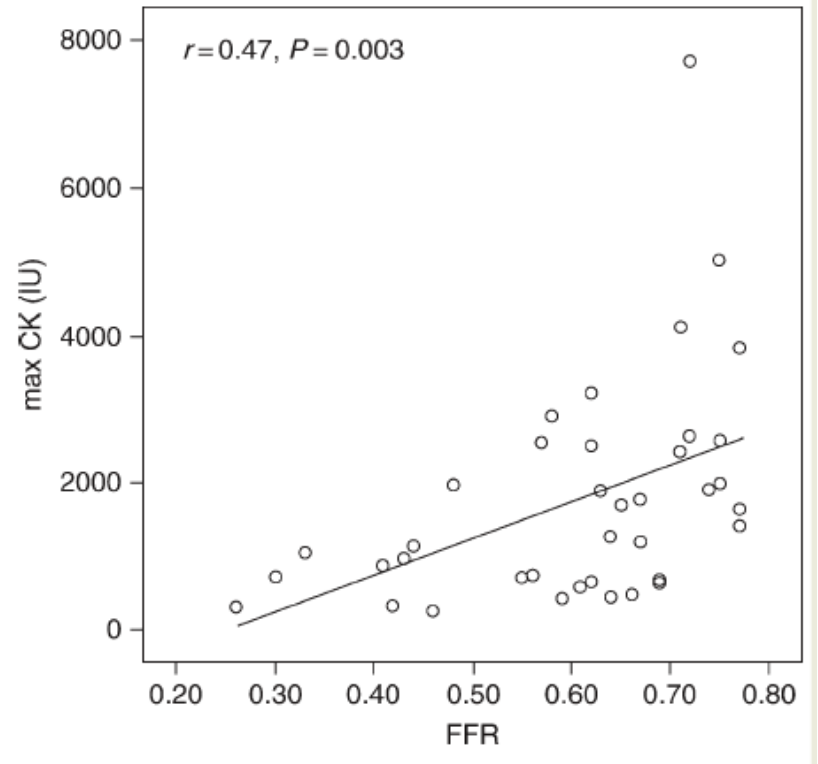
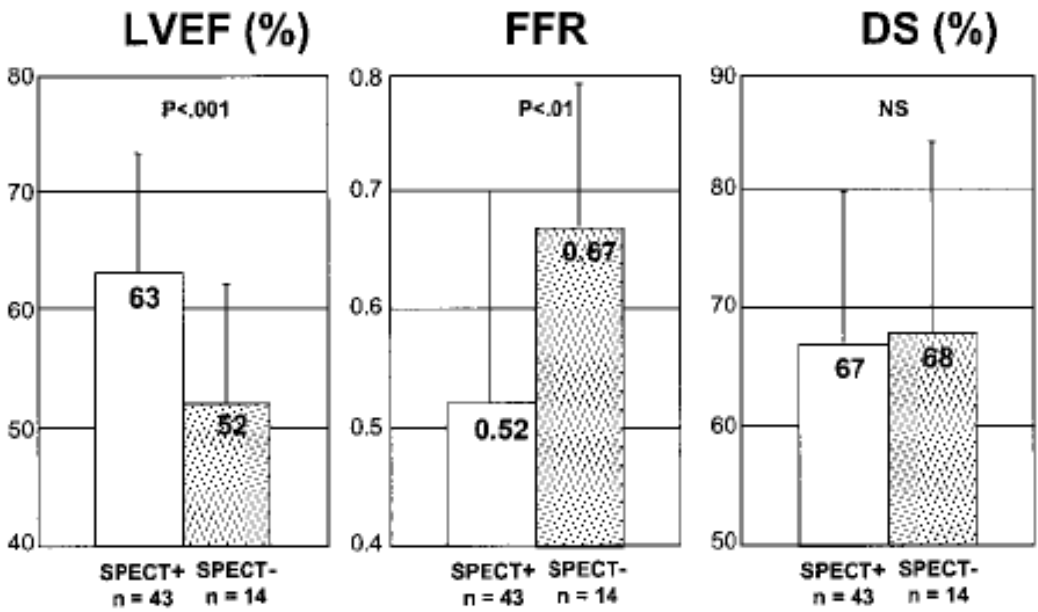


FFR trial: STEMI & multivessel disease

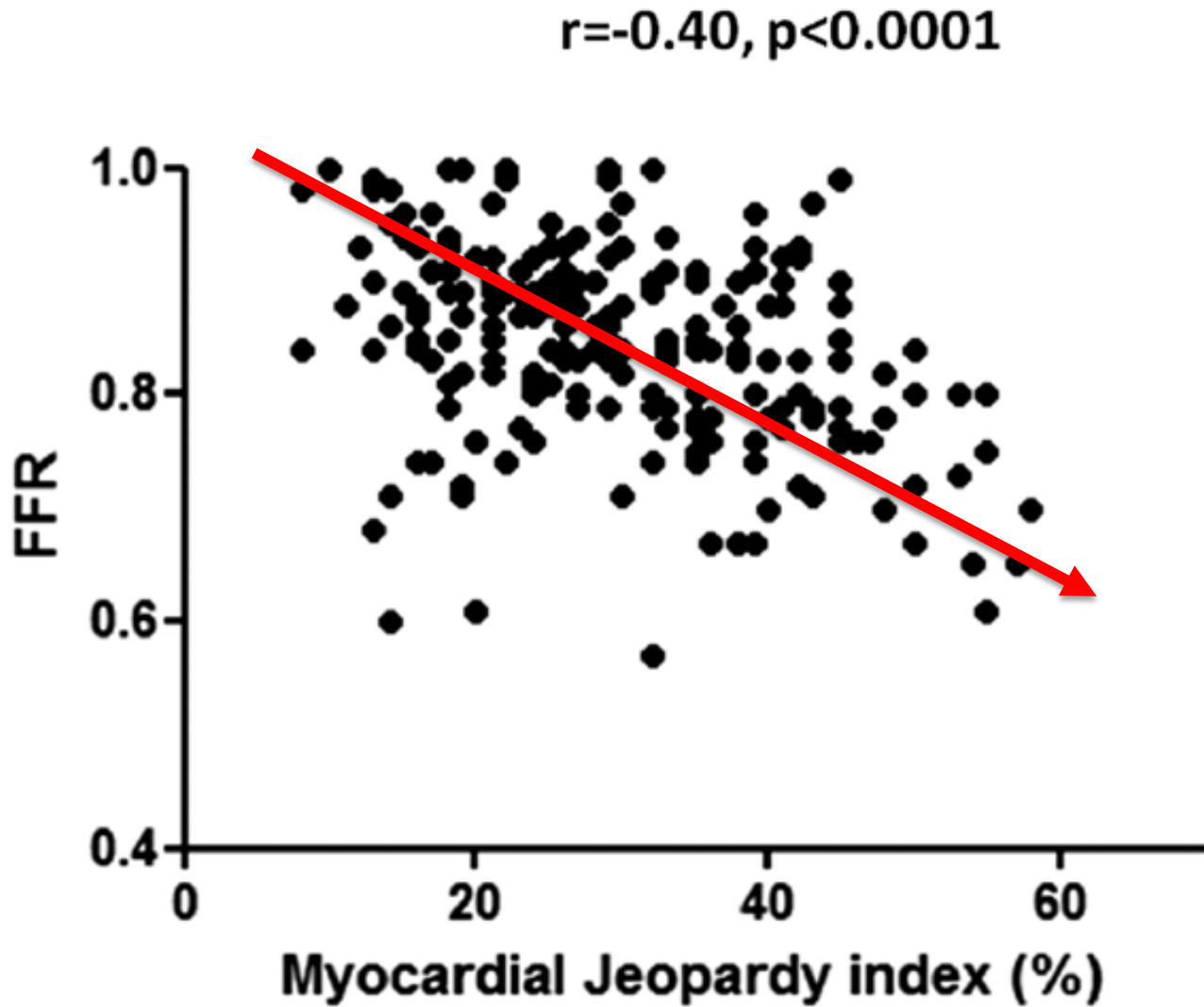




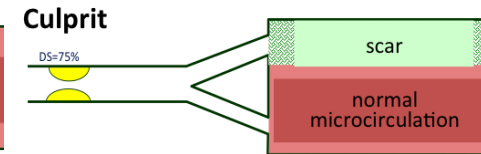
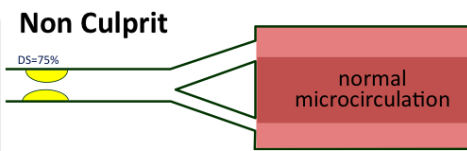
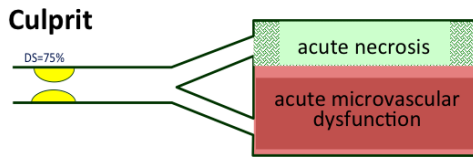
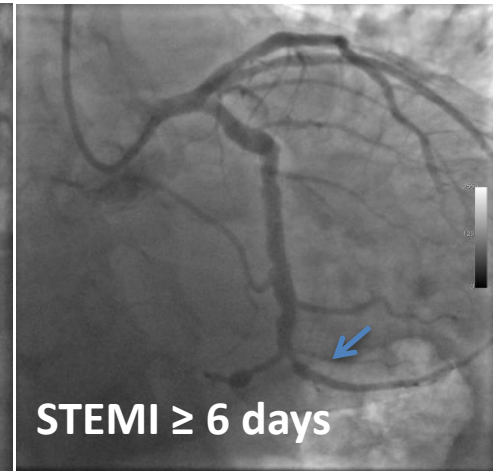
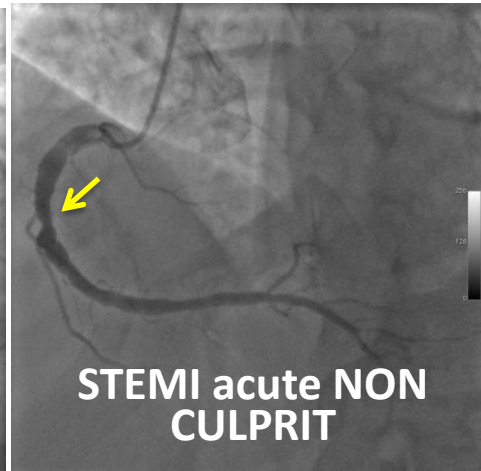
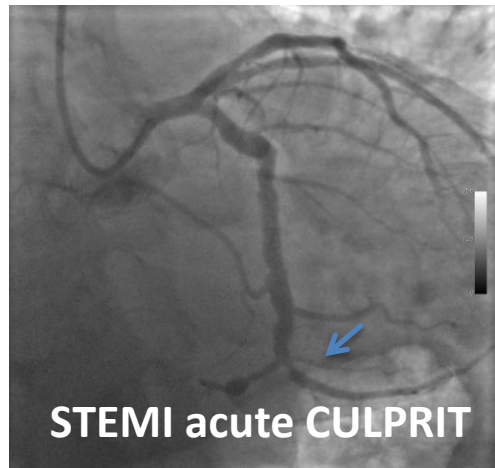
FFR post MI : relationship with myocardial mass?



213 stenosis
184 patients



FFR in Acute Coronary Syndrome



Culprit STEMI acute



Non culprit STEMI acute



culprit STEMI ≥D6

