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UNSTABLE ANGINA/NSTEMI: INVASIVE THERAPY

BY

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UNSTABLE ANGINA/NSTEMI: INVASIVE THERAPY

- Rationale for early invasive strategy
- Coronary angiography
- Percutaneous revascularization (PTCA)
- Surgical revascularization (CABG)

Conclusions

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RATIONALE FOR EARLY INVASIVE STRATEGY

- 20% of patients with UA/NSTEMI without recurrent ischemia in the first 24 h, have significant left main disease or severe 3-vessel disease who can derive survival benefit from CABG
- 10-15% have non significant stenosis
- Early angiography and revascularization of the culprit lesion 1- reduce the risk of subsequent hospitalization, 2- decrease need for antianginal drugs
- Improved pharmacologic treatment (LMWH, GPIIb,IIIa receptor blockers, etc.), dereased periprocedural risk

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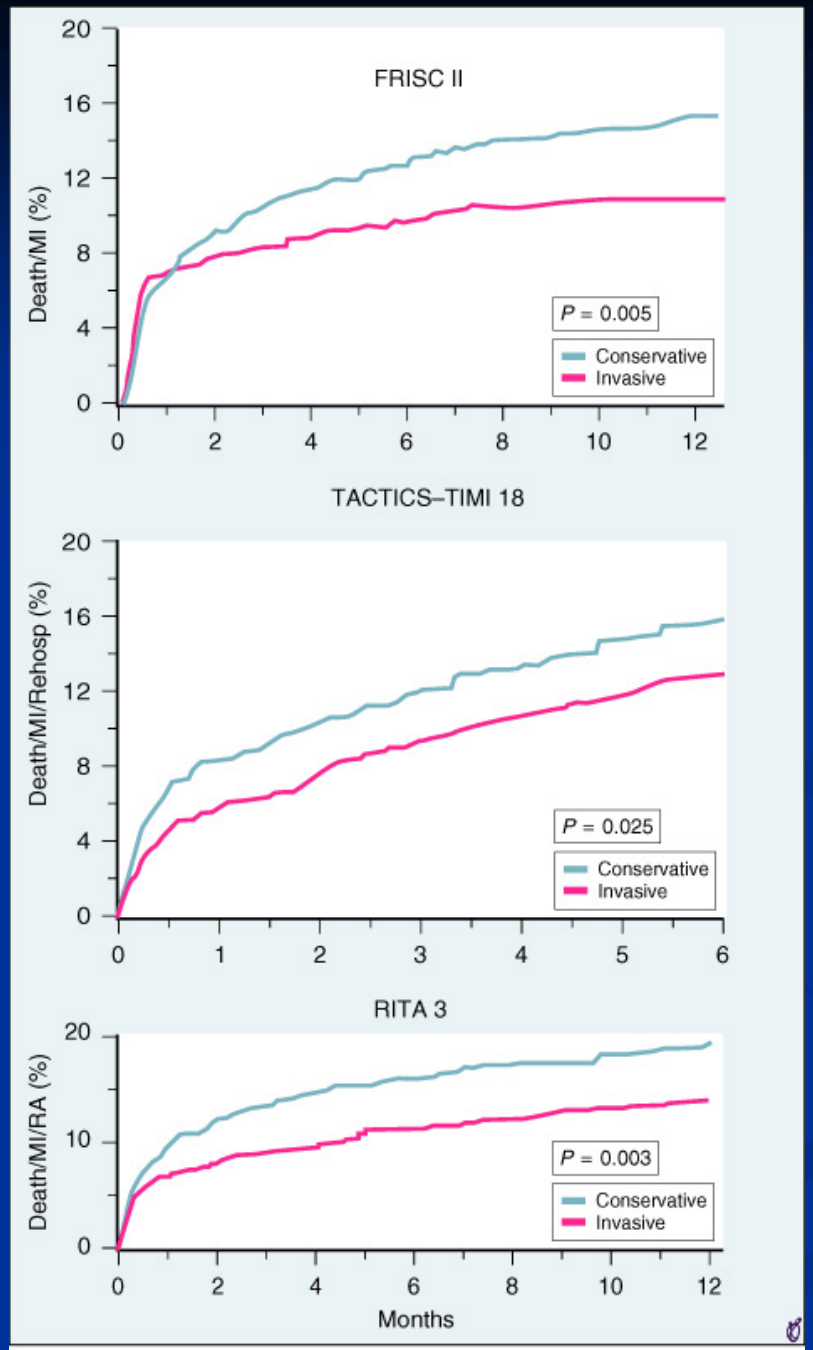
CINICAL TRIALS

- To date, 9 randomized trials have studied the relative merits of an early invasive strategy, involving routine cardiac cath. with revsacularization, compared with a conservative strategy in which angiography and revascularization is reserved for pts. who have evidence of recurrent ischemia either at rest or on provocative tests.
- The first 3 trials failed to demonstrate a significant benefit
- 6 of these trials have all shwown a significant benefit



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EARLY CORONARY ANGIOGRAPHY AND REVASULARIZATION (CLASS 1; LEVEL OF EVIDENCE A)

- Recurrent angina/ischemia at rest or with low level activities despite intensive medical ttt
- Elevated Troponin level
- New ST-segment depression
- Recurrent angina/ischemia with CHF, S3, pulmonary edema, new or worsening MR
- High risk findings on non invasive testing
- Depressed LV systolic function (EF <40%)
- Hemodynamic instability
- Sustained ventricular tachycardia
- PCI within 6 months
- Prior CABG

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TIMING OF INVASIVE STRATEGY

- An analysis of the timing of angiography within the early invasive arm of the TACTICS-TIMI failed to find any major differences in outcomes among patients who underwent angiography within the first 12 , versuss 12-24, and 24-48 hours.
- The optimal timing appears to be within the first 48 hours.

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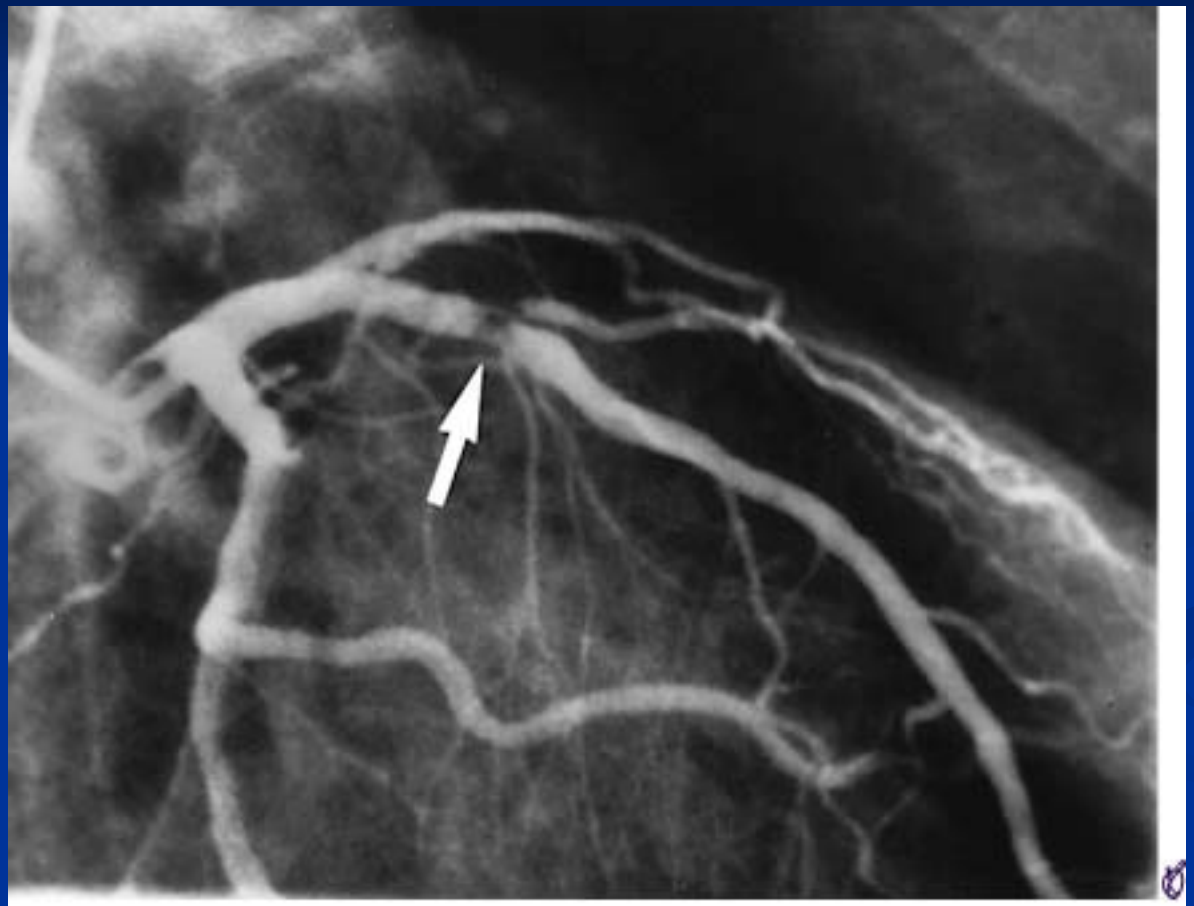
PTCA

- PCI is an effective means of reducing coronary obstruction, improving acute ischemia, improving regional and global LV function
- High angiographic success > 95%
- Presence of thrombus increases the risk of abrupt vessel closure
- Use of Gp IIa, IIIb receptor blockers, LMWH, clopedigrel, etc. decreased periprocedural complications
- Use of DE stents improved long term outcome and decreased retenosis rate



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CABG

- Significant left main disease
- 3-vessel disease with depressed LV systolic function
- 3-vessel in diabetics
- 2- vessel including severe proximal LAD

TABLE 49G–9 American College of Cardiology/American Heart Association Guidelines for Mode of Coronary Revascularization for Unstable Angina or Non-ST Elevation Myocardial Infarction

Extent of Disease	Treatment	Appropriateness Class	Level of Evidence
Left main disease (≥50% stenosis), candidate for CABG	CABG PCI	I III	A C
Left main disease, not candidate for CABG	PCI	IIb	C
Three-vessel disease with EF<0.50	CABG	I	A
Multivessel disease including proximal LAD with EF<0.50 or treated diabetes	CABG PCI	I IIb	A B
Multivessel disease with EF>0.50 and without diabetes	PCI	I	A
One- or two-vessel disease without proximal LAD but with large areas of myocardial ischemia or high-risk criteria on noninvasive testing	CABG or PCI	I	B
One-vessel disease with proximal LAD	CABG or PCI	IIa	B
One- or two-vessel disease without proximal LAD with small area of ischemia or no ischemia on noninvasive testing	CABG or PCI	III*	C
Insignificant coronary stenosis	CABG	CABG or PCI	IIIC

*Class = I if severe angina persists despite medical therapy.
CABG = coronary artery bypass graft; EF = ejection fraction; LAD = left anterior descending; PCI = percutaneous coronary intervention.

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