

Transmyocardial Revascularization as an adjunctive therapy in complex revascularization cases



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Adjunctive TMR in Complex Revascularization Cases

- **TMR + CABG versus CABG Alone (Inclusion Criteria)**
 - 219 patients revascularized by CABG Alone
 - 36 patients revascularized by TMR + CABG
 - Indications for surgery (both groups) were:
 - CCSAS III or IV angina
 - $EF \geq 30\%$
 - Indications for adjunctive TMR:
 - Arterial target not amenable to angioplasty or stenting
 - Arterial target not amenable to CABG (i.e., ≤ 1 mm diameter)
- **Exclusion Criteria**
 - Emergency procedure within 12 hours
 - Unstable angina
 - Acute MI within 72 hours

Adjunctive TMR in Complex Revascularization Cases

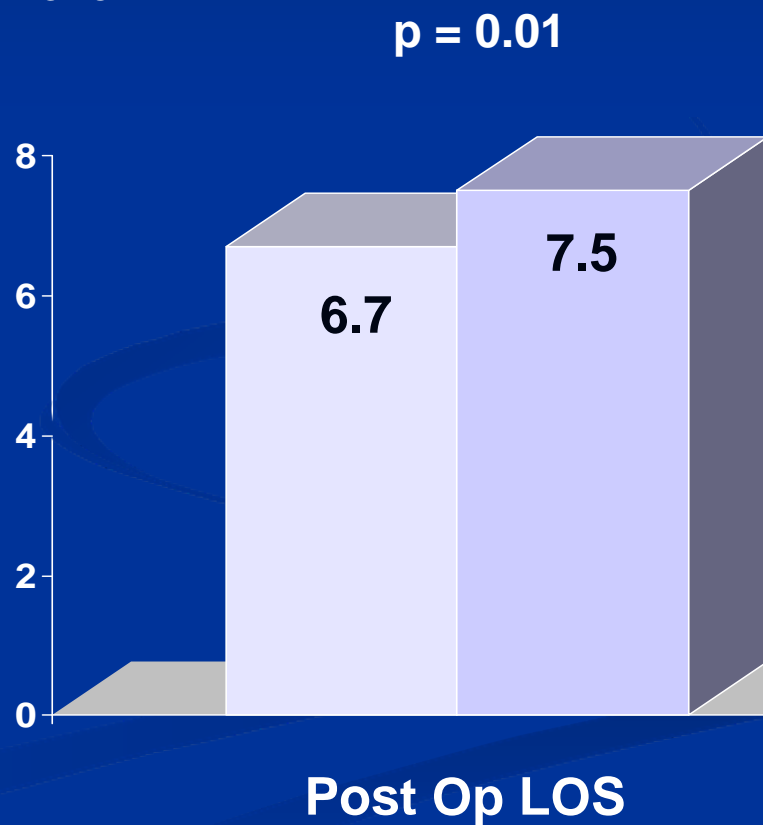
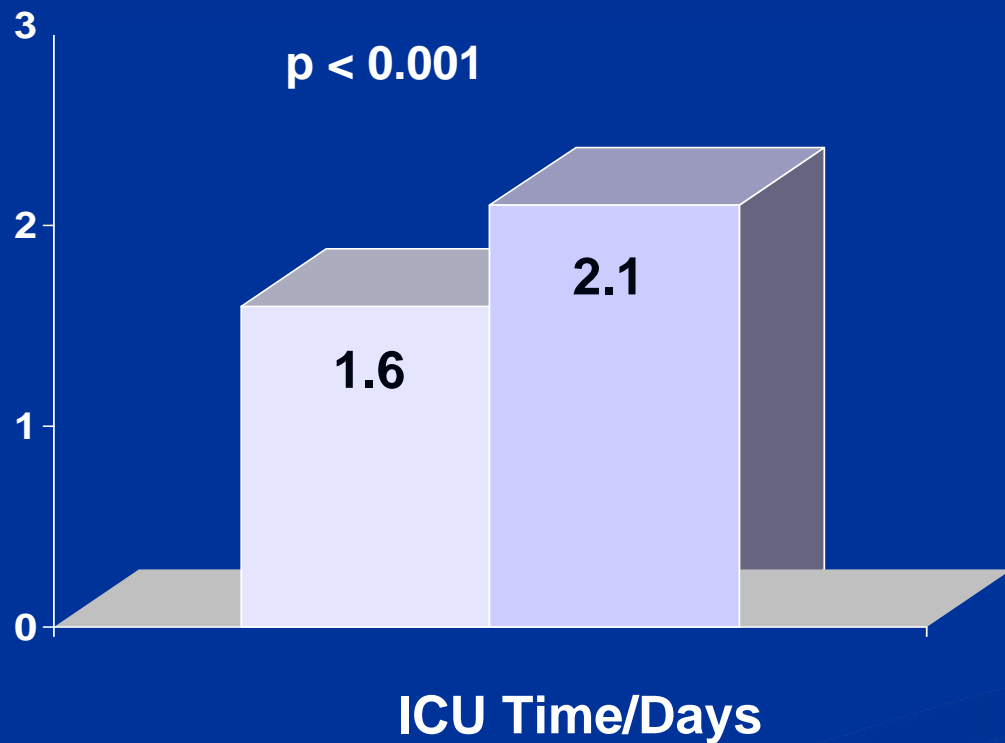
Study Results

- **Baseline characteristics of two groups; ages and EF's were similar**
- **Procedural characteristics similar**
 - **3.1 vs 2.9 mean grafts**
 - **276 vs 272 minutes total procedural time**
- **30 day outcomes compared**

Perioperative Outcomes

CABG + TMR

CABG Alone



Perioperative Outcomes

CABG + TMR

CABG Alone

$p = 0.48$

2.8%

7.8%

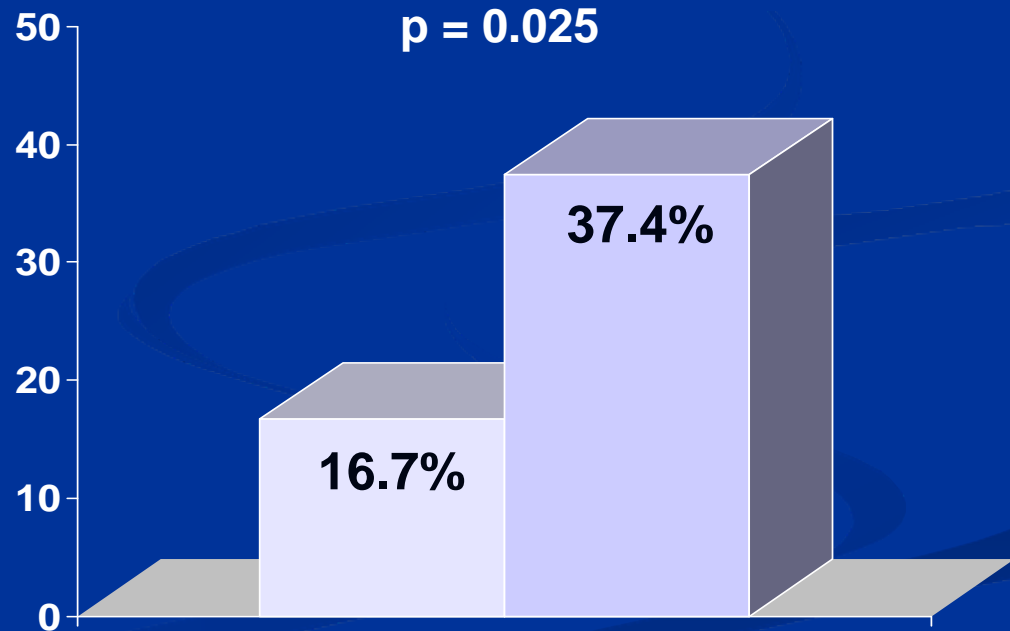
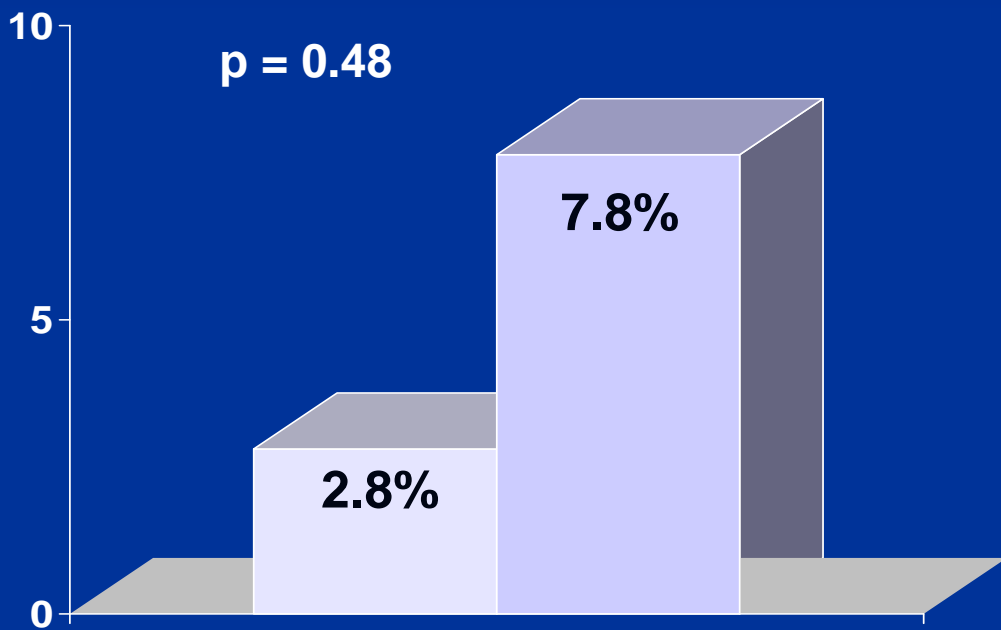
30 Day Readmit

$p = 0.025$

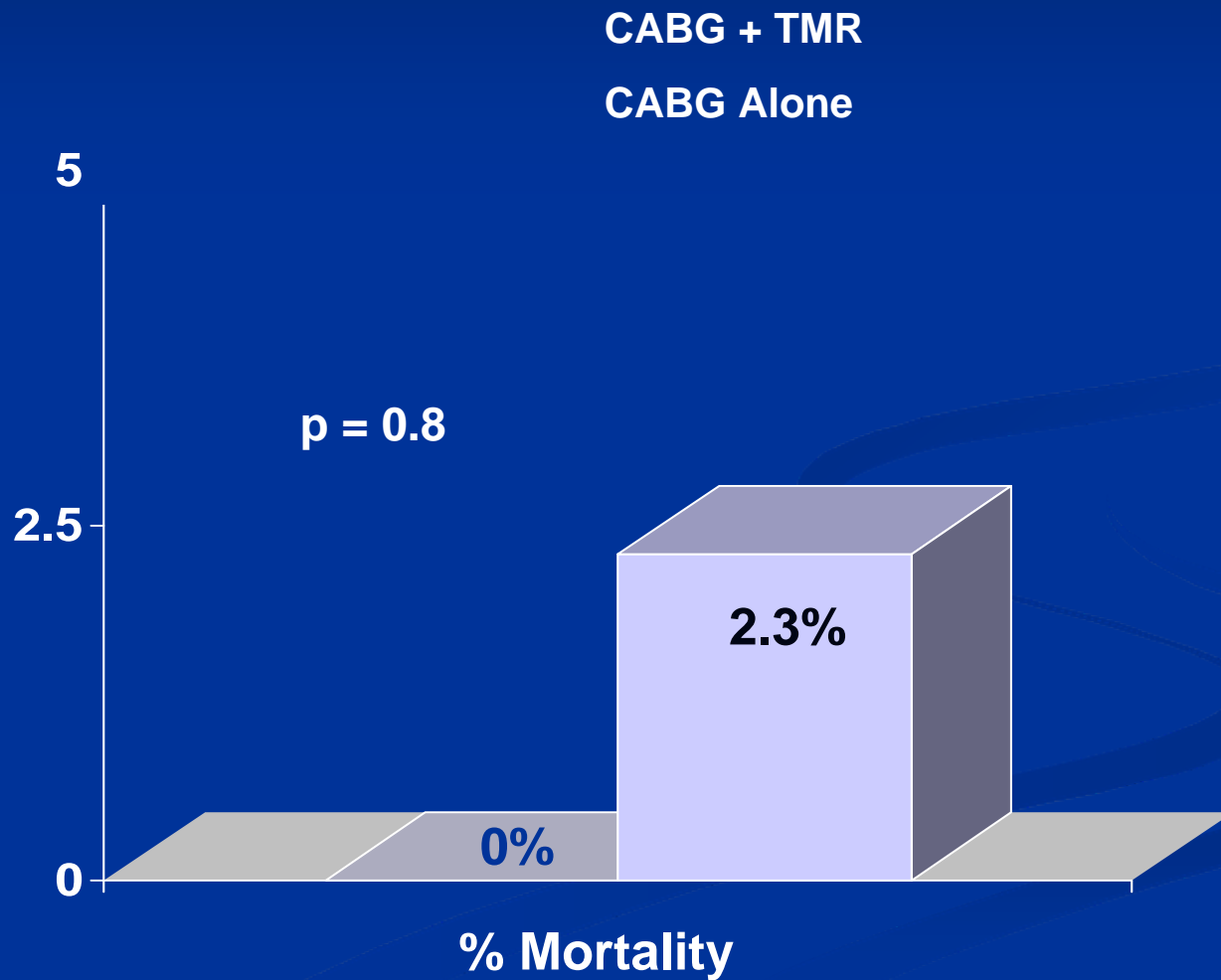
16.7%

37.4%

Post Op Afib



30 Day Mortality



Adjunctive TMR in Complex Revascularization Cases

Conclusions

- CABG + TMR compared to CABG alone in these selected patients is associated with reduced ICU time, post op length of stay, and incidence in post op atrial fibrillation.
- CABG + TMR may also provide an advantage in operative survival and reduction in rehospitalizations, compared to CABG alone.