Treatment for Chest Pain

Lifespan Cardiovascular Institute
Rhode Island Hospital • The Miriam Hospital
Newport Hospital
Delivering health with care®

The Center For Cardiac Fitness
Cardiac Rehab Program
The Miriam Hospital
Chest Pain Treatment

• Medical
  – Beta-blockers
  – Calcium channel blockers
  – Nitrates

• Mechanical
  – PCI
  – CABG
Medical Therapy

• Goals – supply vs. demand
  – Decrease resting/exercise heart rate
    • Medications
    • Training effect
    • Stress reduction
    • Knowledge
  – Increase blood flow
    • Medications
      – Nitrates
      – Cholesterol reduction
    • Collateral development
Medical Therapy

Acute vs. Chronic

• Acute
  – Multiple causes of pain
    • GERD, muscles/bones, lung disease
    • Angina
  – Nitrates, Aspirin, Blood Thinners

• Chronic
  – Medications
    • Beta blockers, Ca^{++} channel blockers, ACE/ARB, Nitrates, Cholesterol lowering, Anti-platelet agents
  – Mechanical interventions
Mechanical Therapy

• No effect on demand only on supply
• Increase blood flow
  – PCI – “Percutaneous Coronary Intervention”
    • Stents
      – Bare metal
      – Drug-eluting
    • POBA
    • Rotational atherectomy or “roto”
    • Thrombectomy (clot removal)
Mechanical Therapy

• Increase supply
  – CABG
    • Arterial conduits
    • Venous conduits
    • Off pump/beating heart
Medical Therapy after Mechanical Intervention

• Control of risk factors
  – Hypertension
  – Increased cholesterol
  – Diabetes

• Prevent re-occlusion
  – Aspirin
  – Plavix/clopidogrel