Disclosures

- None
Interventions in Atrial Fibrillation

14th Internal Medicine Conference
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Case: 55 year old man

• Comes for a 2\textsuperscript{nd} opinion
• PAF for 6 years, permanent AF 1 year
• Can still bicycle and feels “normal”
• Pacemaker 5 years ago
• Meds: dabigatran, diltiazem, losartan
• Chest pain 10 d prior – heart cath
  • No significant CAD
  • Severe MR
  • Mild to moderate LV dysfunction
• TEE done, surgery recommended
Exam

• BP 116/72, pulse 72, irregular
• Grade II apical holosystolic murmur
ATTN: Karen.

10/26/2011 10:24:54 AM

- atrial flutter with second degree AV block at variable conduction ratio
- premature ventricular complexes or aberrantly conducted complexes
- left axis deviation
- septal infarct
- GS in V1 V2
- R < 0.15 mV in V3
- Abnormal ECG

Unconfirmed Report
Atrial Fibrillation

• Stroke Risk
• Symptom Management

“Atrial fibrillation is the low back pain of cardiology”
Mike Crawford
Atrial Fibrillation

• Stroke Risk

• Symptom Management
Relative contributions of different risk factors to the CHADS$_2$ score ("NIH")

- 73,558 patients with AF not treated with OAC (Denmark)

Olesen et al BMJ 2011;342:d124
Left Atrial Appendage and Stroke

• In a review of 23 studies that evaluated the presence and location of LA thrombus by TEE, autopsy or operation in the presence of AF:
  • LA thrombus in 13% of RHD and 17% of nonRHD patients
  • 57% of thrombi in the LAA in RHD vs. 91% in nonRHD
Left Atrial Appendage and Stroke

Courtesy Joe Blackshear
“Comparison” of NOACs and LAA occlusion: Risk of stroke (and embolic events)

Comparison of NOACs and LAA occlusion: Risk of bleeding

Annual Risk (%)

Dabigatran 3.0
Rivaroxaban 3.5
Apixaban 2.0
PROTECTAF 4.0

Watchman

Warfarin

Atrial Fibrillation

• Stroke Risk
  • $\text{CHA}_2\text{DS}_2$-Vasc
  • LAA occlusion in selected patients

• Symptom Management
Atrial Fibrillation

• Stroke Risk
  • CHA$_2$DS$_2$-Vasc
  • LAA occlusion in selected patients

• Symptom Management
Risks of Antiarrhythmic Drug Therapy

Quinidine

- 3 Months: Quinidine (69%) vs. Placebo (45%)
  - $P < .001$
- 6 Months: Quinidine (58%) vs. Placebo (33%)
  - $P < .001$
- 12 Months: Quinidine (50%) vs. Placebo (25%)
  - $P < .001$

12 Months Mortality:
- Quinidine: 12/417
- Placebo: 3/387
  - $P < .05$

“Poisons with desirable side-effects”
Maintenance of SR: Amiodarone

CTAF Trial*

- Amiodarone 10 mg/kg x 2 wk, 300 mg x 4 wk, 200 mg/d (n=201)
- Propafenone 300-450 mg/d (n=101)
- Metoprolol 160 mg bid or 80 mg tid (n=101)

Days of Follow-up

Without, %

first 21 days.

“Poisons with desirable side-effects.”

Dronedarone
Flecainide
Propafenone
Sotalol
Dofetilide
Nothing like a low bar?
Drugs that do not work too well and have side-effects/risk
Endoscopic view of the pulmonary veins
Endoscopic view of the pulmonary veins
Endoscopic view of the pulmonary veins
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Endoscopic view of the pulmonary veins
Endoscopic view of the pulmonary veins
Endoscopic view of the pulmonary veins
Endoscopic Images of the Pulmonary Veins

LSPV

LIPV
Case: Internal Cardioversion
Decreased mitral regurgitation: AF ablation
Interventional Options in Atrial Fibrillation

• Stroke Risk
  • *LAA occlusion in selected patients?*

• Symptom Management
  • *Catheter ablation in selected patients? (Drug refractory, symptomatic, PAF?)*
  • *Catheter ablation does not affect stroke risk*