Adjunctive Therapy* and Post-Procedural Monitoring (*Including Tools, Duration, Documentation*) * *

(Anti-Platelet, Anti-Coagulant, Anti-Arrhythmic)** *(Clinical, Rhythm, Laboratory)**

Academic View

Background:

Overview of the Importance of the Issue Under Discussion

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- *AF ablation is not always successful:*
  - AF recurrences are common
    - Symptomatic -- some requiring antiarrhythmic intervention
    - Asymptomatic – with implications for rate control and anticoagulation
    - *What defines procedural success? How should it be assessed? How should recurrences be treated?*

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    - *What defines procedural success? How should it be assessed? How should recurrences be treated?*
- *AF ablation may be associated with clot formation and/or prothrombotic initiators/sites:*
  - Anticoagulation is necessary following ablation
    - How, if at all, should we / can we risk stratify?
    - How long should we treat acutely? Who requires it chronically? Does it matter if an arrhythmia recurs post ablation and which one it is?
    - *Which drug(s) are reasonable/do we have data for: warfarin, anti-platelet agents, Xa / thrombin inhibitors?*
    - *Should ablation be coupled with LAA occlusion?*

What Works Well Today?

- Assessing Recurrence:
  - Patient symptoms, patient pulse self-assessment
  - Intermittent monitoring: HM, TSED, memory loop recorders, auto-triggered memory loop recorders
  - Mobile Cardiac Outpatient Telemetry – the most thorough
  - *Should one method be standard? How often should we monitor? For how long? Should we use implanted monitors?*
  - *If need for AAD is just for symptom control, then no monitoring is needed.*
  - *If AAD is for any recurrence (? To stop anticoagulation), then intensive monitoring is needed.*

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  - *Should one method be standard? How often should we monitor? For how long? Should we use implanted monitors?*
- Handling Anticoagulation:
  - Parenteral regimens (pre/post) and oral warfarin
  - *Are traditional "high-risk" markers adequate / appropriate as a guide to utilizing chronic anticoagulation?*
  - *Are there lab parameters that might be followed to indicate chronic risk (hematologic, echocardiographic)?*

What is Missing, Broken, or Does Not Work Well Today?

- Arrhythmia Recurrence:
  - Defining success
    - Absence of a standardized monitoring protocol
  - Absence of adequate mechanistic studies re: recurrence
  - Absence of scientific-quality data regarding post-ablation antiarrhythmic drug therapy
    - What works? What doesn't?
    - How should we select an agent? Is there any relationship to arrhythmic mechanism? Is there any relationship to prior success or failure?

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- Anticoagulation:
  - Absence of objective determination for the duration of treatment
  - Absence of a standardized algorithm
  - Is there a safe and effective regimen when warfarin cannot be used?
    - e.g., NPO, the rare warfarin AE, non-compliance, etc.
  - What should we do when anti-platelet agents are required for concomitant conditions?
  - *Is a significant bleeding history a contraindication to ablation of AF?*

What is the Highest Priority *Short Term* (1-3 yrs)?

- Arrhythmia Recurrence:
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  - Standard definition of success
  - Prospective, randomized AAD trials

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- Arrhythmia Recurrence:
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- Anticoagulation:
  - Standard post-ablation anticoagulation protocols
  - Standard post-ablation monitoring protocols re: embolic events
    - *Clinical (?), Imaging (?), Other?*
  - Prospective, randomized trials of oral anticoagulants

What is the Highest Priority *Long Term* (3-5 yrs)?

- Reassessment of thromboembolism concerns with evolutionary approaches to ablation.
- Reassessment of AAD selection with evolutionary approaches to ablation.
- Determining the natural history of asymptomatic recurrences post-ablation.
- Determining the long-term course of patients with initial post-ablation “success.”

Final Thought

- Given the ATHENA results of clinically meaningful outcomes with dronedarone, other than AF reduction, what role will the anticipated release of this agent play in:
  - The place for AF ablation?
  - The role of AAD (dronedarone) discontinuation post ablation?
  - The anticoagulation question?