Management of Complex Atrial Arrhythmias

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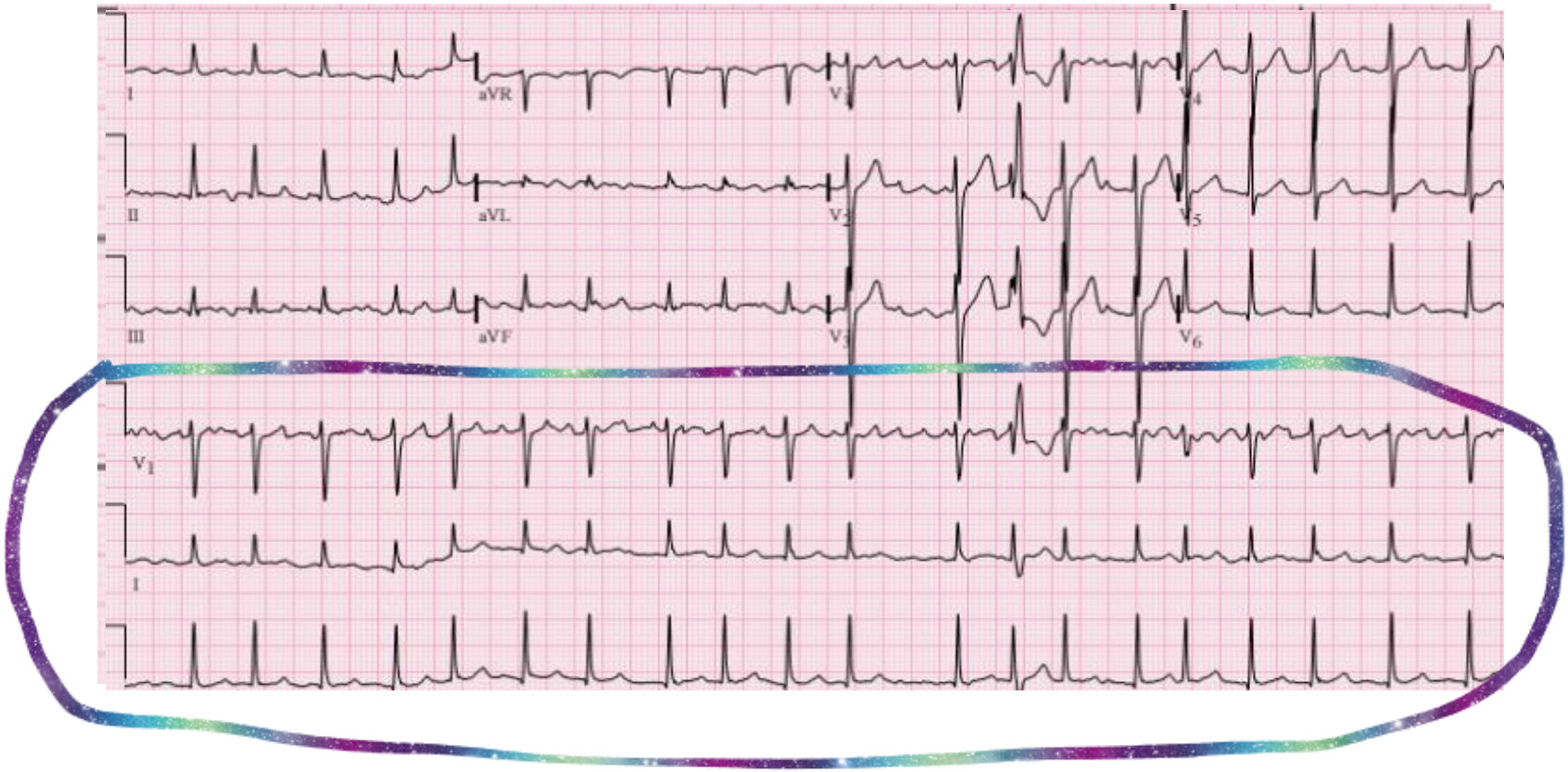
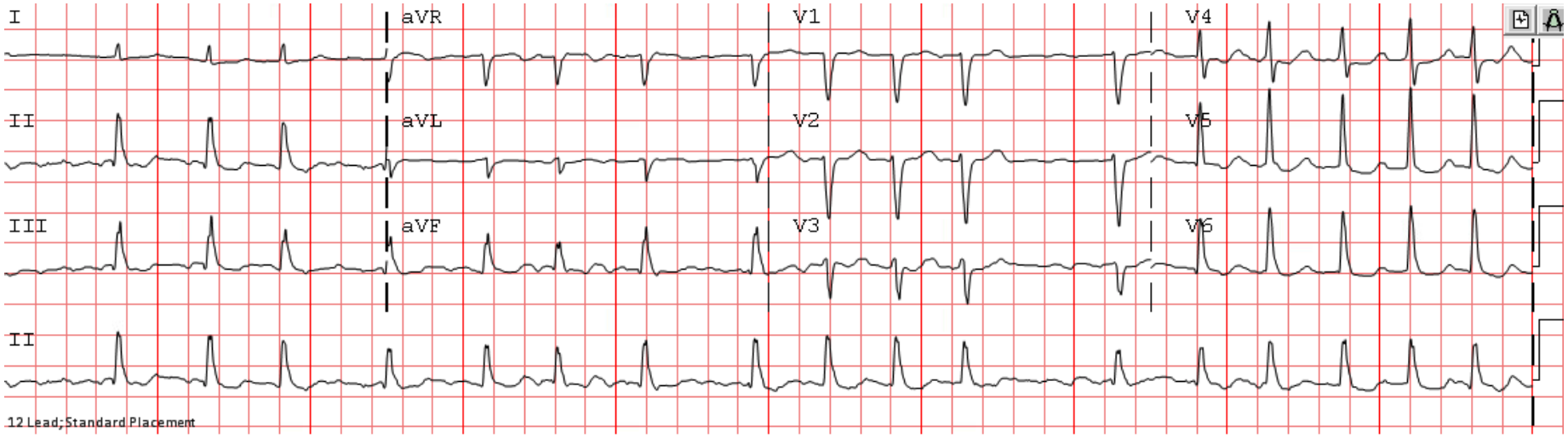
Objectives for Managing Atrial Arrhythmias

Identify	Identify the difference and its impact on management between atrial flutter and coarse atrial fibrillation
Understand	Understand the significance of typical versus atypical atrial flutter
Familiarize	Familiarize with basic management options for invasive rhythm control management of complex atrial arrhythmias
Preview	A Patient Centered, Multi-disciplinary, Integrated Approach

Coarse Fib – Flutter?



“Of Course” Coarse that’s A-Fib



Why it matters to know the difference?

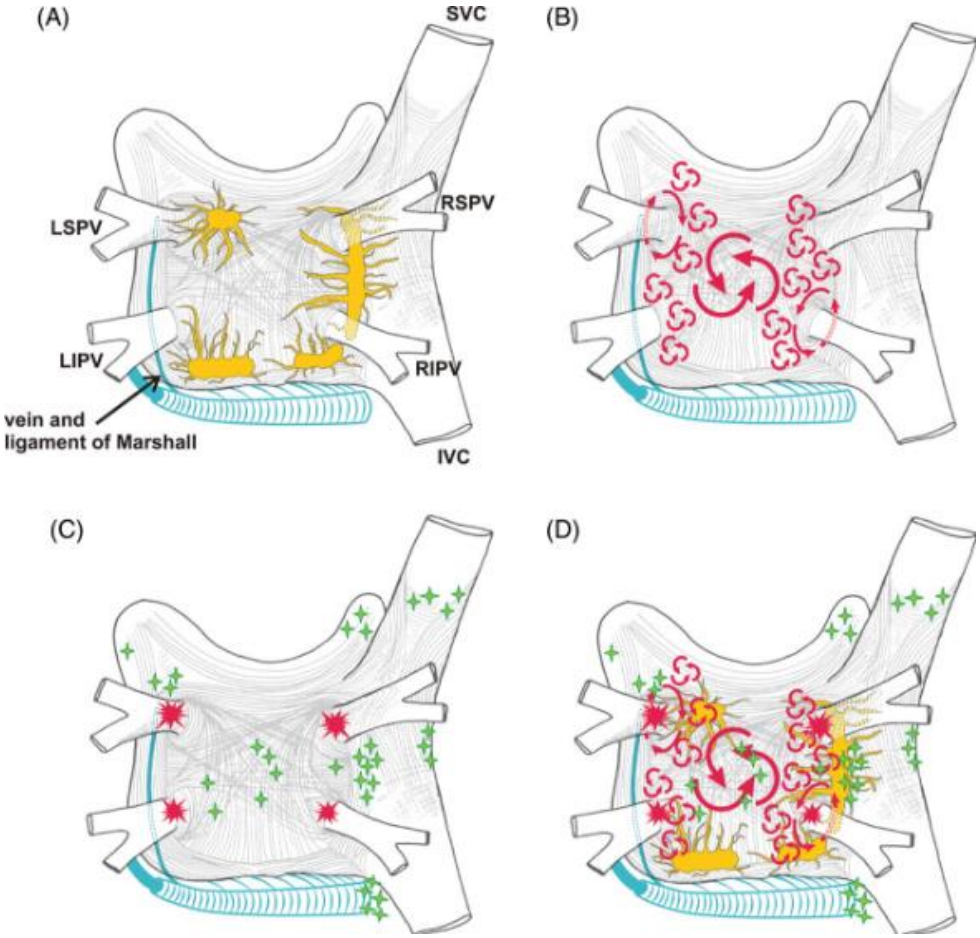
Atrial Flutter is more difficult to ***rate*** control

Atrial Flutter is much less likely to respond to ***rhythm*** control strategy

Atrial Flutter is ***curable*** (if typical) with ablation

Atrial Flutter is ***easier and safer to ablate***

Atrial Fibrillation Mechanisms



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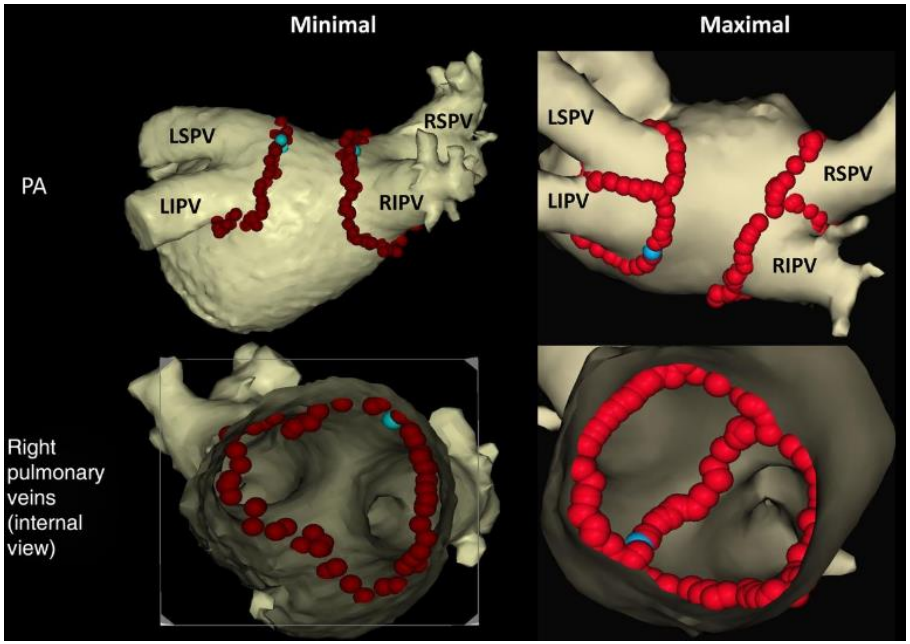
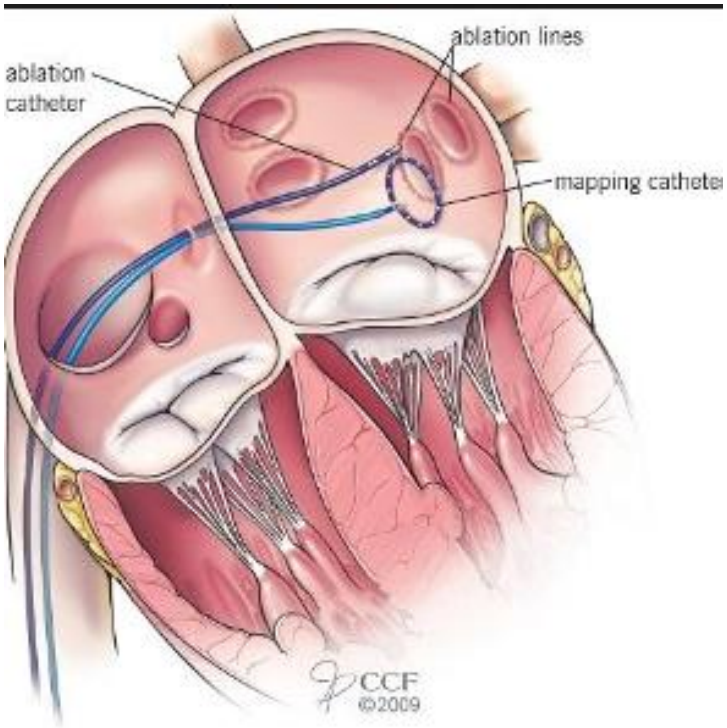
Pulmonary Vein Isolation using Radiofrequency Ablation





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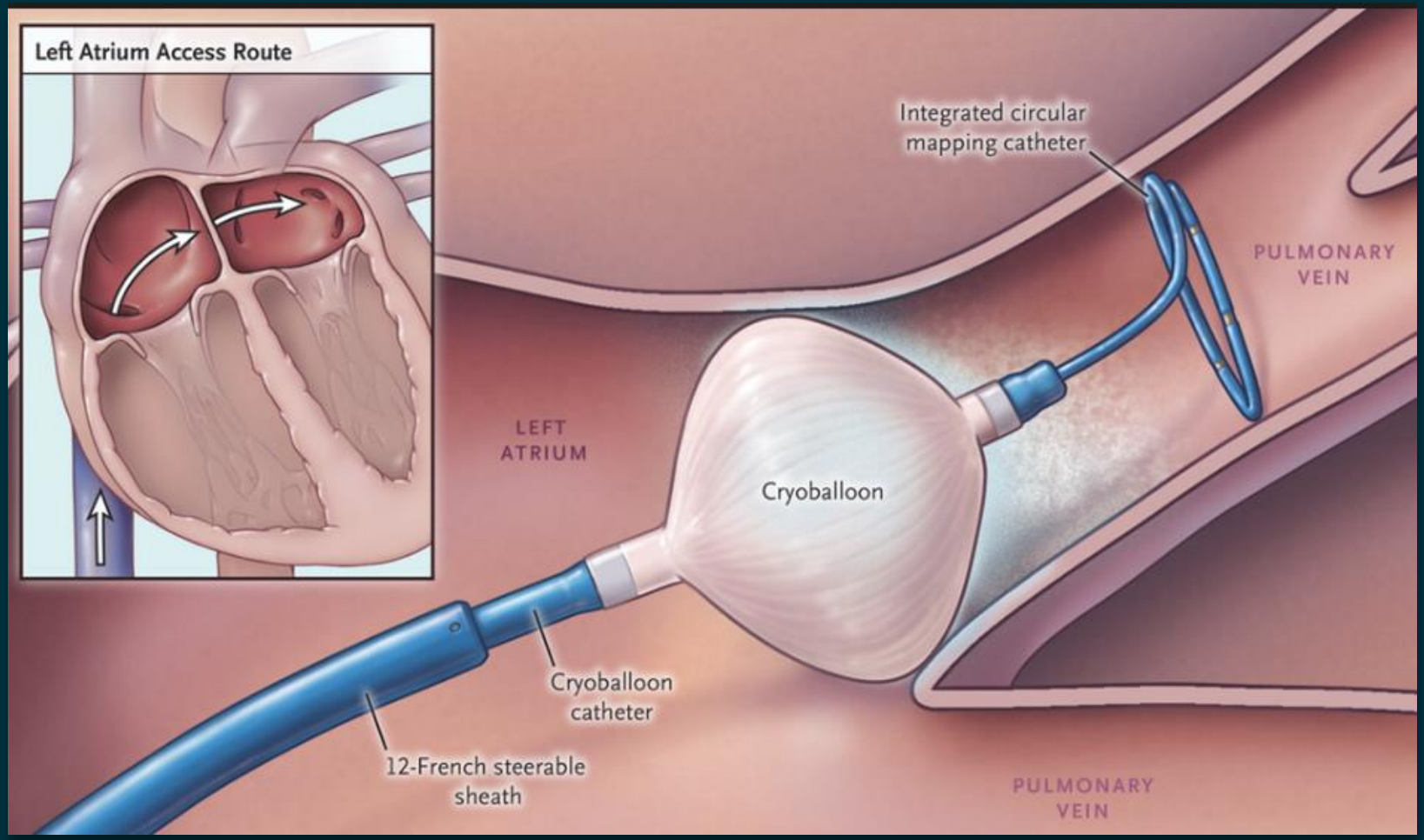
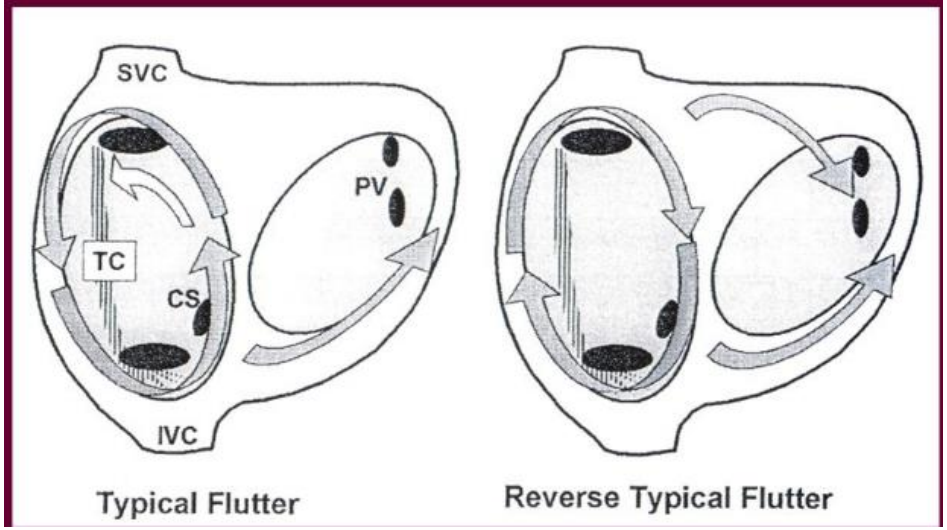
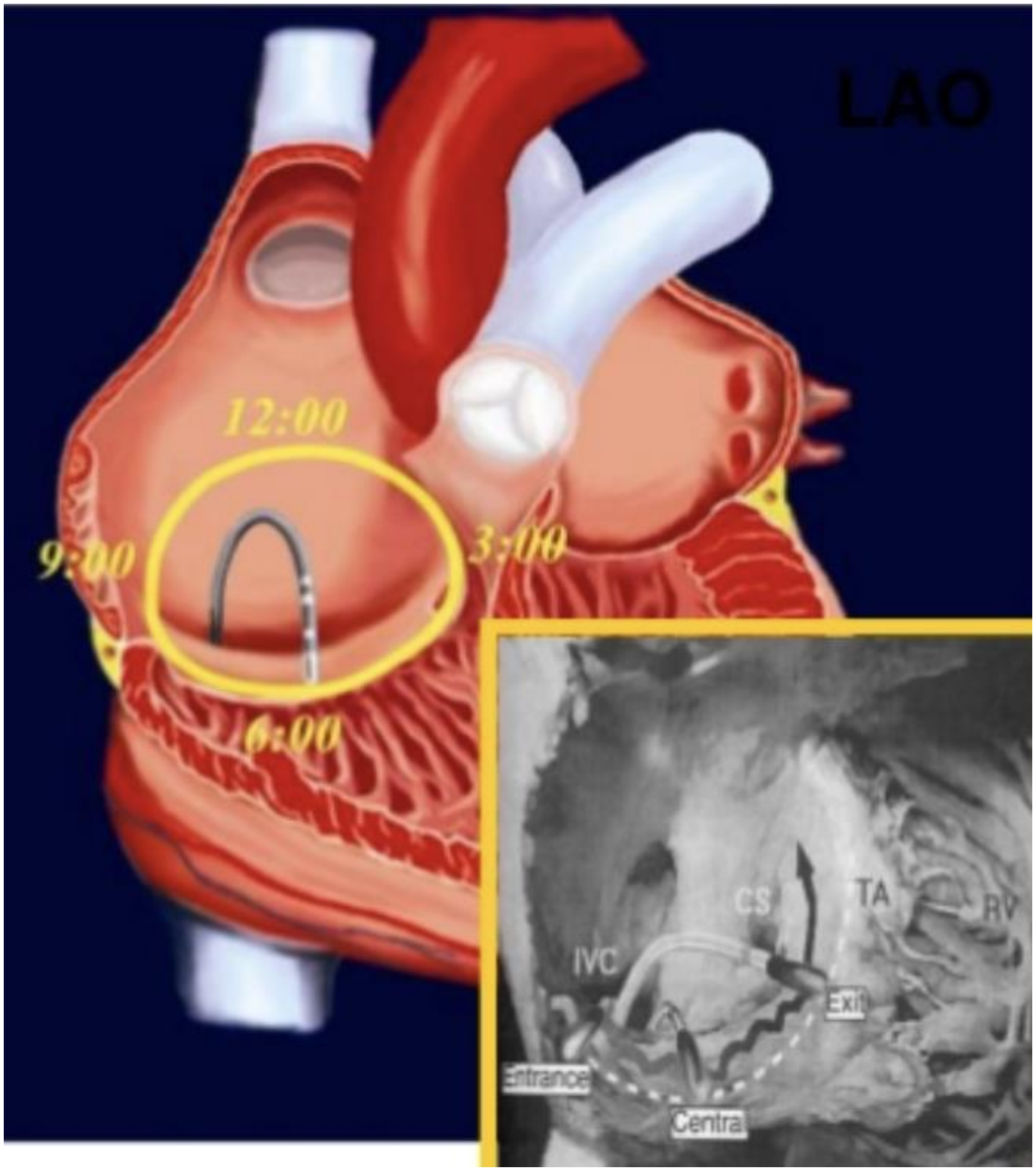
PVI via Cryo

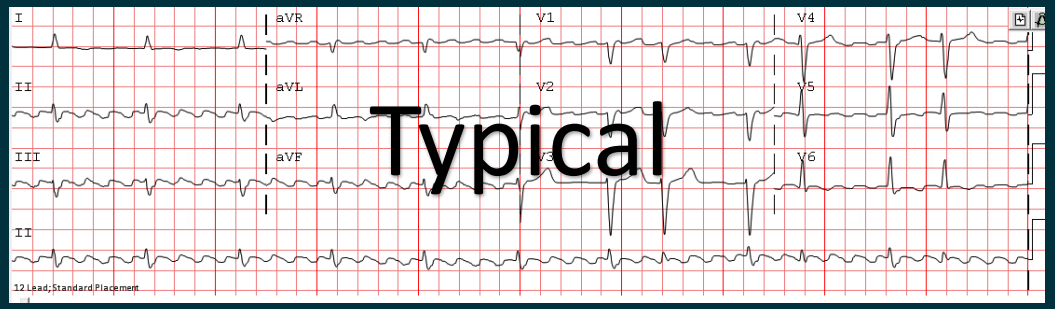

Left Atrium Access Route
Integrated circular mapping catheter
PULMONARY VEIN
LEFT ATRIUM
Cryoballoon
Cryoballoon catheter
12-French steerable sheath
PULMONARY VEIN

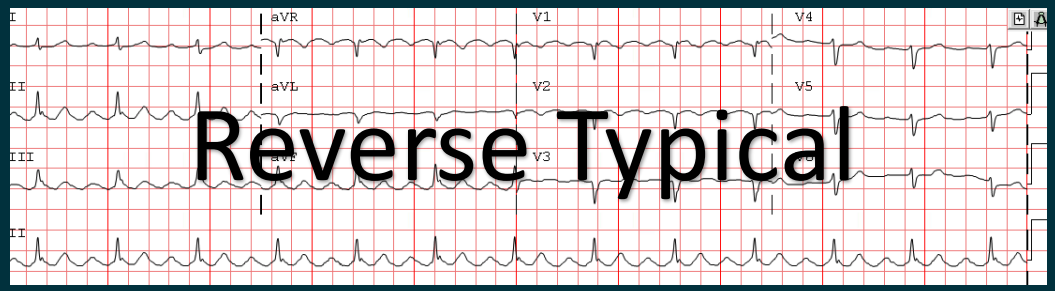
Activation Sequence of Typical Atrial Flutter (LAO View)

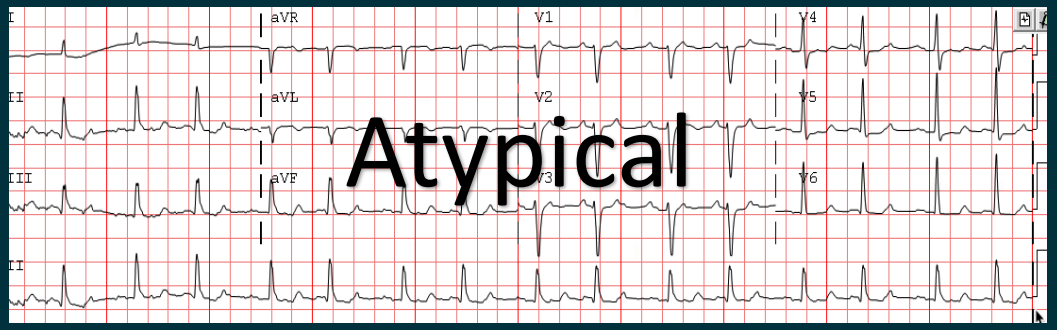



LAO
12:00
9:00
3:00
6:00
CS
TA
RV
IVC
Exit
Entrance
Central

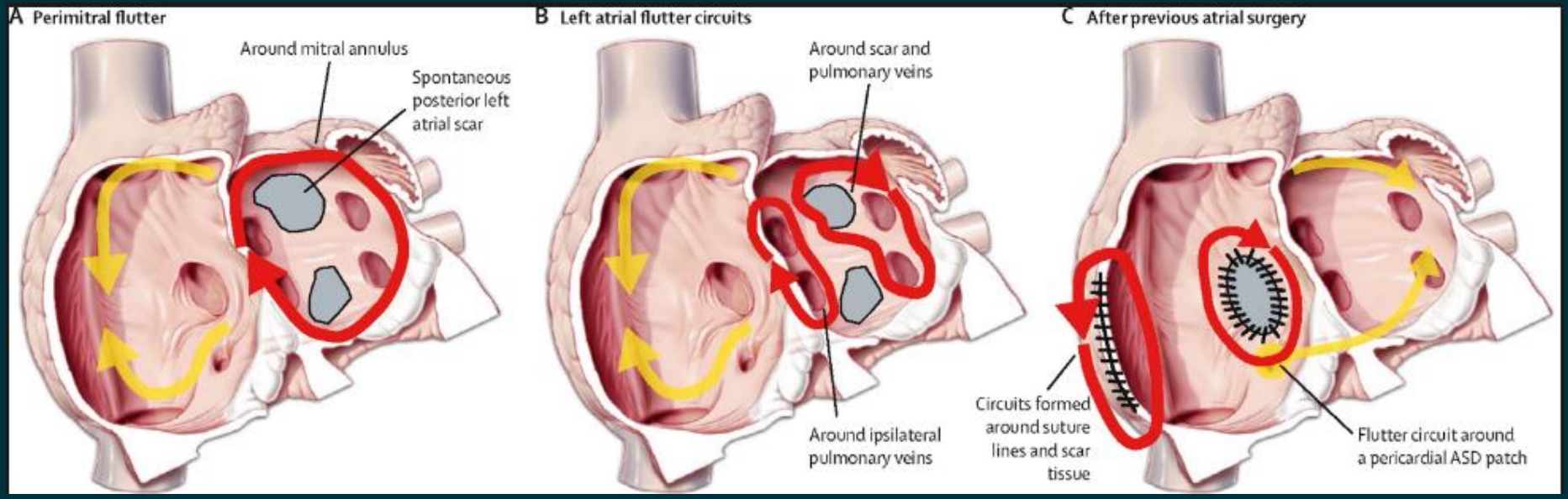
Atrial Flutter





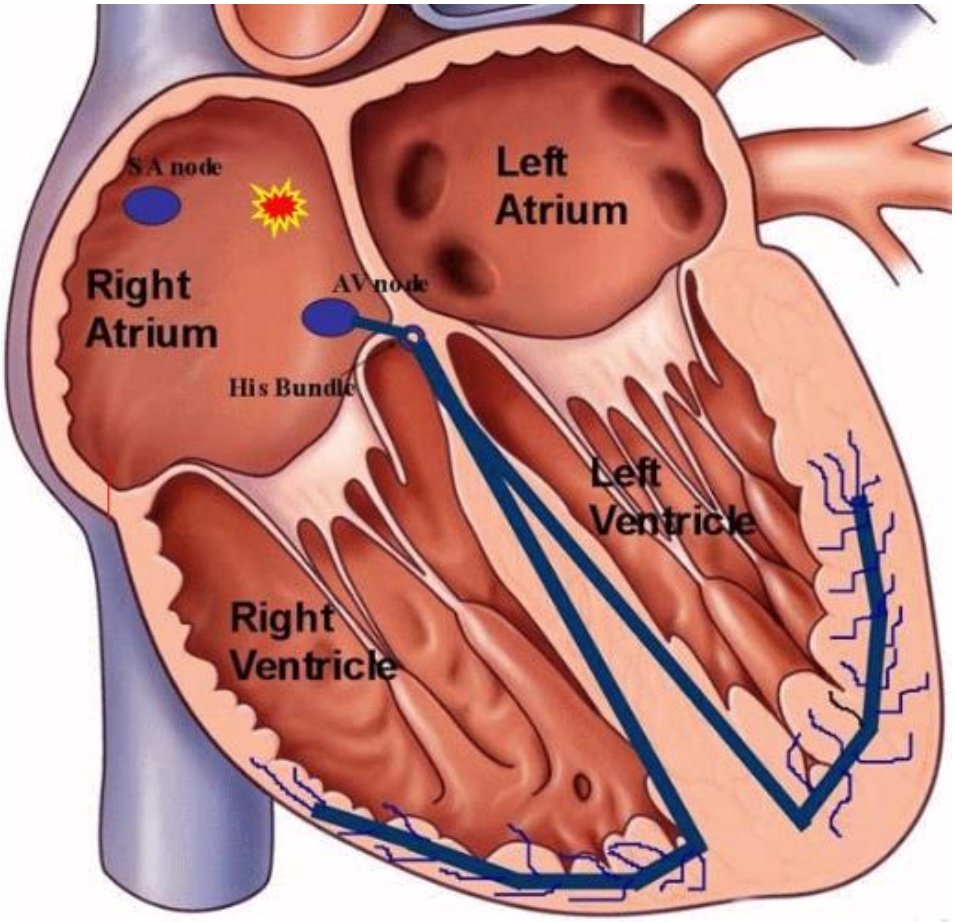


Atypical Atrial Flutter



Atrial Tachycardia versus Atrial Fibrillation and Flutter

- Implies a focal mechanism
- Slower than Atrial Flutter
- Organized like Flutter
- Not "thrombogenic"
- Can become A-fib at some point



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AF is a widespread and growing problem

- AF is the most common arrhythmia in humans
- AF incidence is increasing as a result of the following causes:
  - Population Aging
  - Increased comorbid conditions which contribute to AF
  - Improvements in detection

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The Problem of AF

- Underdiagnosis
- Inadequate treatment
  - i.e. the majority of AF related CVA occurs in patients not on appropriate AC
- Improper care variation especially among the following:
  - Among non-cardiovascular clinicians
  - Across geographies
- All lead to excess M & M
- Huge economic burden to communities and health systems

The Challenge of AF

- Managing the associated comorbidities such as:
  - Obesity, HTN, DM, ASHD & OSA
- To best manage these conditions the following are needed:
  - Other medical disciplines
  - Multiple healthcare providers including APPs
    - Often AF care can be fixated solely on rhythm control and neglects the other aspects
    - In other instances AF care may be managed by non-cardiovascular providers who often may not be up to date with current guidelines for AF management

Examples of Problems with AF

- Stroke prevention studies show
  - Underuse of Oral Anticoagulation (OAC) in appropriate patients
  - Overuse of OAC in low-risk patients
  - Ineffective dosing of OAC when used

The Vision of an AF-CoE

- Address all aspects of AF
  - Patient Centered
  - Multidisciplinary
  - Integrated Model of Care
- Reason for Value
  - Improved outcomes
  - Decreased costs

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Coming Soon!

An Atrial Fibrillation Center of Excellence (AF-CoE)

- Lifestyle Modification
- Stroke Prevention
- Rate Control of AF
- Rhythm Control of AF

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