



Continuing Medical Education Information

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CME

Heart Rhythm Society
1400 K Street NW Suite 500
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For questions and more information, please contact:

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CONTINUING MEDICAL EDUCATION (CME) SUBMISSION FORM

for

Advanced Ablation: Atrial and Ventricular Arrhythmias

To obtain 2.25 CME credits send your completed Post-Test, Submission Form, Evaluation and payment, if applicable, to Heart Rhythm Society.

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EVALUATION

Advanced Ablation: Atrial and Ventricular Arrhythmias

How effective was the presentation in helping you to...

1. Discuss the use of ablation as a treatment option for cardiac arrhythmias.

___Not effective ___Somewhat effective ___Effective ___Very effective

How effective was the presentation format in terms of...

	Excellent				Poor
Clarity and organization	1	2	3	4	5
Content	1	2	3	4	5
Quality of media	1	2	3	4	5

Please indicate your response whether you:

1= Strongly Agree

4=Disagree

2=Agree

5=Strongly Disagree

3=No Opinion

The presentations facilitated learning.	1	2	3	4	5
The presentations were fair, balanced and free of any commercial bias.	1	2	3	4	5

Please use this space to comment on any of the above:

CME

POST-TEST QUESTIONS

Please circle the correct answer. A score of 80% or higher is needed to pass the test.

William Stevenson MD lecture

1. Lower loop reentry requires:
 - a. The crista terminalis
 - b. Bachman's bundle
 - c. Cavotricuspid isthmus
 - d. The His Bundle
 - e. Mitral annulus

2. During typical counterclockwise atrial flutter, one RF lesion delivered between the IVC and the tricuspid valve with an 8 mm tip catheter stops atrial flutter. Which of the following is most likely?
 - a. Isthmus conduction persists
 - b. Reinduction of typical atrial flutter is uncommon
 - c. Other forms of atrial flutter can be induced
 - d. Rate independent conduction slowing is likely present

3. A Crista Shunt
 - a. Demonstrates isthmus conduction is present
 - b. Falsely suggests conduction through the isthmus
 - c. Indicates the substrate for upper loop reentry
 - d. Predicts long term risk of atrial fibrillation

Akihiko Nogami, MD lecture

1. In verapamil sensitive idiopathic LV VT, which is the most common type?
 - a. RBBB LAD
 - b. RBBB RAD
 - c. Narrow QRS RAD
 - d. Narrow QRS LAD
 - e. LBBB LAD

2. In idiopathic LV VT, which of the following is a criterion INDICATES SUCCESSFUL ablation after ablation?
 - a. Absence of P1 potential
 - b. Absence of ventricular echo beat with atrial pacing
 - c. P1 (diastolic Purkinje potential) before the QRS in sinus rhythm
 - d. P2 (pre-systolic potential) after the QRS in sinus rhythm

3. The presence of a P1 potential during sinus rhythm indicates:

- a. Presence of unidirectional conduction block
- b. Presence of ventricular tachycardia
- c. Evidence for manifest entrainment from P2 potential
- d. Successful ablation of LVVT

John Miller, MD lecture

1. Seek a late diastolic potential during ventricular tachycardia for which of the following types of VT?
 - a. Focal
 - b. Polymorphic
 - c. Macro reentry
 - d. Bundle branch reentry
 - e. A and C
 - f. C and D

2. A deeply negative QS unipolar late diastolic potential in idiopathic focal VT potentially indicates which of the following?
 - a. Successful ablation site
 - b. A site where the first post pacing interval is at the tachycardia cycle length
 - c. A and B
 - d. Neither A nor B

3. In macro reentry scar related VT, seek a site that has
 - a. An isolated, non-dissociatable mid-diastolic potential
 - b. Stimulus to QRS that is greater than electrogram to QRS in VT
 - c. Fractionated midsystolic potential
 - d. Entrainment with manifest fusion
 - e. Perfect pace map

Walid Saliba, MD lecture

1. Left coronary aortic cusp VT localization is best performed by
 - a. Pace mapping
 - b. Activation mapping
 - c. Entrainment mapping
 - d. Unipolar electrogram characteristics

2. The left aortic cusp is most closely related to the
 - a. RV outflow tract
 - b. Left atrial appendage
 - c. Anterior septum
 - d. Right ventricular epicardium

3. The 12 lead ECG from aortic cusp VT

- a. Has a transition at or before V2
- b. Has a tall pointed QRS in lead III
- c. Has a RBBB morphology
- d. Has a QS pattern in I

Mohamed Hamdan, MD lecture

1. An atrial flutter that has typical ECG morphology in the inferior leads and whose post pacing interval is greater than the tachycardia cycle length in the isthmus is most likely to be ablated with:
 - a. A line of block between the left inferior pulmonary vein and the mitral annulus
 - b. A line of block between the crista terminales and the SVC
 - c. A line of block between a lateral line of double potentials and the IVC
 - d. A medial line of block between the tricuspid annulus and IVC

2. Upper loop reentry atrial flutter can be ablated by a line of block
 - a. Between the cavotricuspid isthmus and the crista terminalis
 - b. Across the sinus node
 - c. Adjacent to Bachman's Bundle
 - d. At the lower Crista Terminalis
 - e. In a pouch anterior to the Eustachian ridge

3. Apparent conduction block in the isthmus may actually be marked conduction delay. Which maneuver has been able to help distinguish the two?
 - a. Place the Halo across the isthmus before pacing
 - b. Pace at slower rates
 - c. Pace at faster rates
 - d. Pace from the isthmus
 - e. Perform CARTO mapping

4. Differential pacing to assess double potentials can help determine conduction block from slowed conduction. Which of the following is true? Pacing at 7 o'clock and 9 o'clock will shorten the inter double potential conduction
 - a. If there is slowed conduction in the isthmus
 - b. If there is conduction block in the isthmus
 - c. If there is no conduction delay in the isthmus
 - d. If there is delay in conduction in the isthmus

Sanjay Dixit, MD lecture

1. RVOT tachycardia is most likely in which age group?
 - a. Older males
 - b. Younger females
 - c. Older females
 - d. Younger males

2. The first line therapy for RVOT tachycardia is:
 - a. A beta-blocker
 - b. A calcium channel blocker
 - c. A sodium channel blocker
 - d. A potassium channel blocker

3. A septal site RVOT has which of the following ECG appearance?
 - a. QS in I
 - b. Large R wave in aV1
 - c. Large R wave in V2
 - d. QS in III

4. Septal site VT vs. free wall VT
 - a. Has a notch in aVF
 - b. Has a taller and narrower QRS
 - c. Has a qR in II
 - d. Has a less prominent R in aVF

Francisco Cosio, MD lecture

1. Atypical and typical atrial flutter can appear the same. If the isthmus does not stop the flutter and there are double potentials in the posterior right atrial free wall. A lesion can be placed
 - a. Between the crista and the IVC
 - b. Between the coronary sinus and the IVC
 - c. Between the fossa ovalis and the IVC
 - d. Between the fossa ovalis and Bachman's bundle
2. Typical appearing atrial flutter that is not ablated from the isthmus, that does not stop with an isthmus application is most likely:
 - a. Focal atrial tachycardia
 - b. Upper loop reentry
 - c. Isthmus pouch tachycardia
3. Atrial flutter with right to left CS activation that does not stop with ablation in the isthmus and does not cover the entire activation during the entire flutter cycle length is most likely:
 - a. A focal micro-reentry atrial flutter circuit
 - b. An atrial tachycardia
 - c. A right superior pulmonary vein tachycardia

William Miles, MD lecture

1. Why would you want to ablate PVCs?
 - a. Prevention of ventricular fibrillation
 - b. Symptoms
 - c. Prevention of tachycardia induced cardiomyopathy
 - d. All of the above

2. PVCs can be mapped to be ablated if it initiates:
 - a. ventricular fibrillation
 - b. orthodromic tachycardia
 - c. AV nodal reentry
 - d. B,C
 - e. A,C

3. What is the best way to localize PVCs for ablation?
 - a. Activation mapping
 - b. Pace mapping

4. Where do PVCs causing VF tend to originate
 - a. LV septum
 - b. Purkinje system
 - c. RV outflow tract
 - d. Anterior RV
 - e. Anterior RV and LV