

# **THE ABC OF SYNCOPE**

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**Arrhythmias in the Real World 2008**

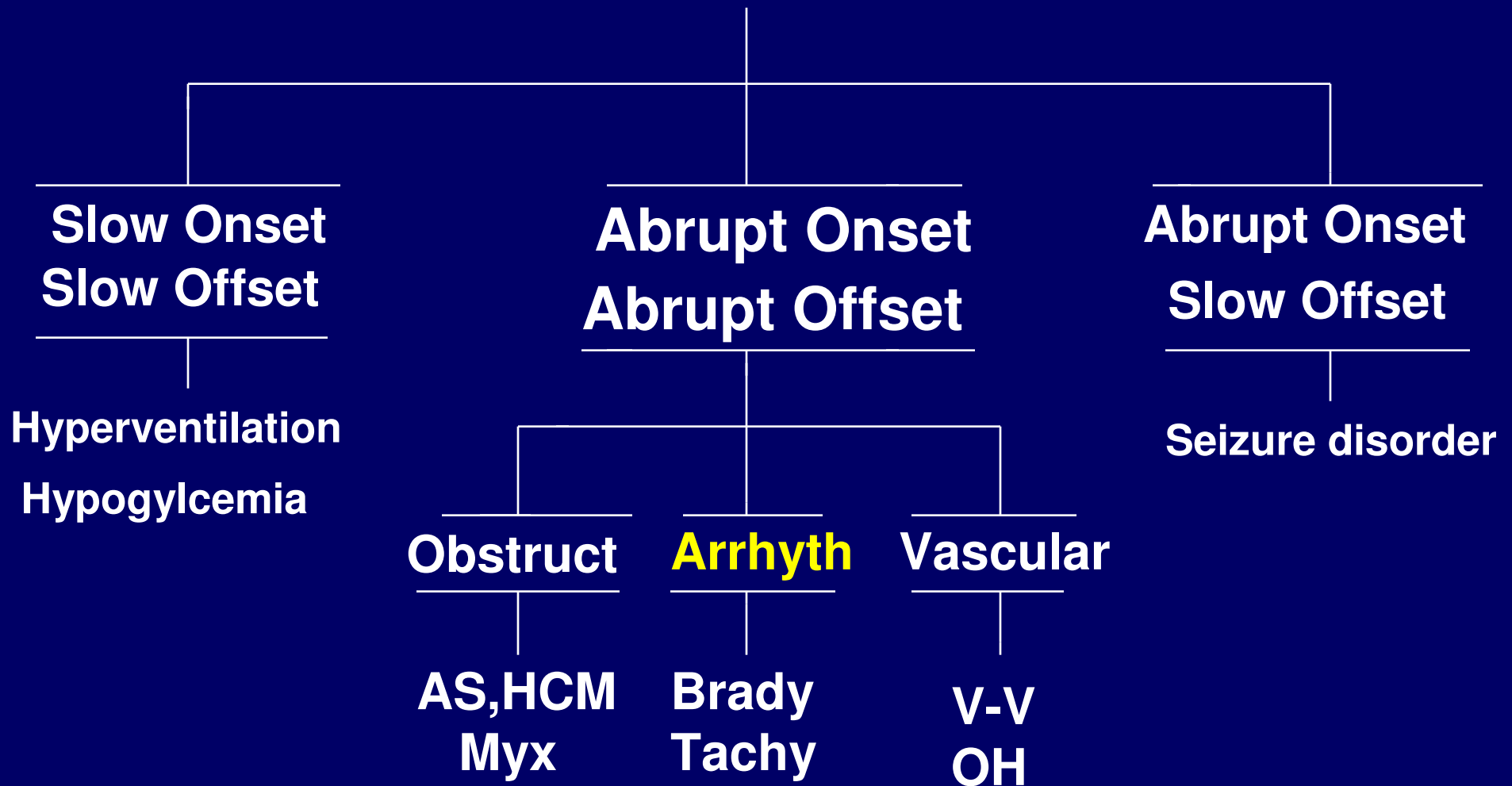
**Heart House, Washington, D.C.**

**September 12. 2008**

# **SYNCOPE**

**Sudden temporary loss of consciousness with spontaneous recovery not requiring electrical or chemical cardioversion.**

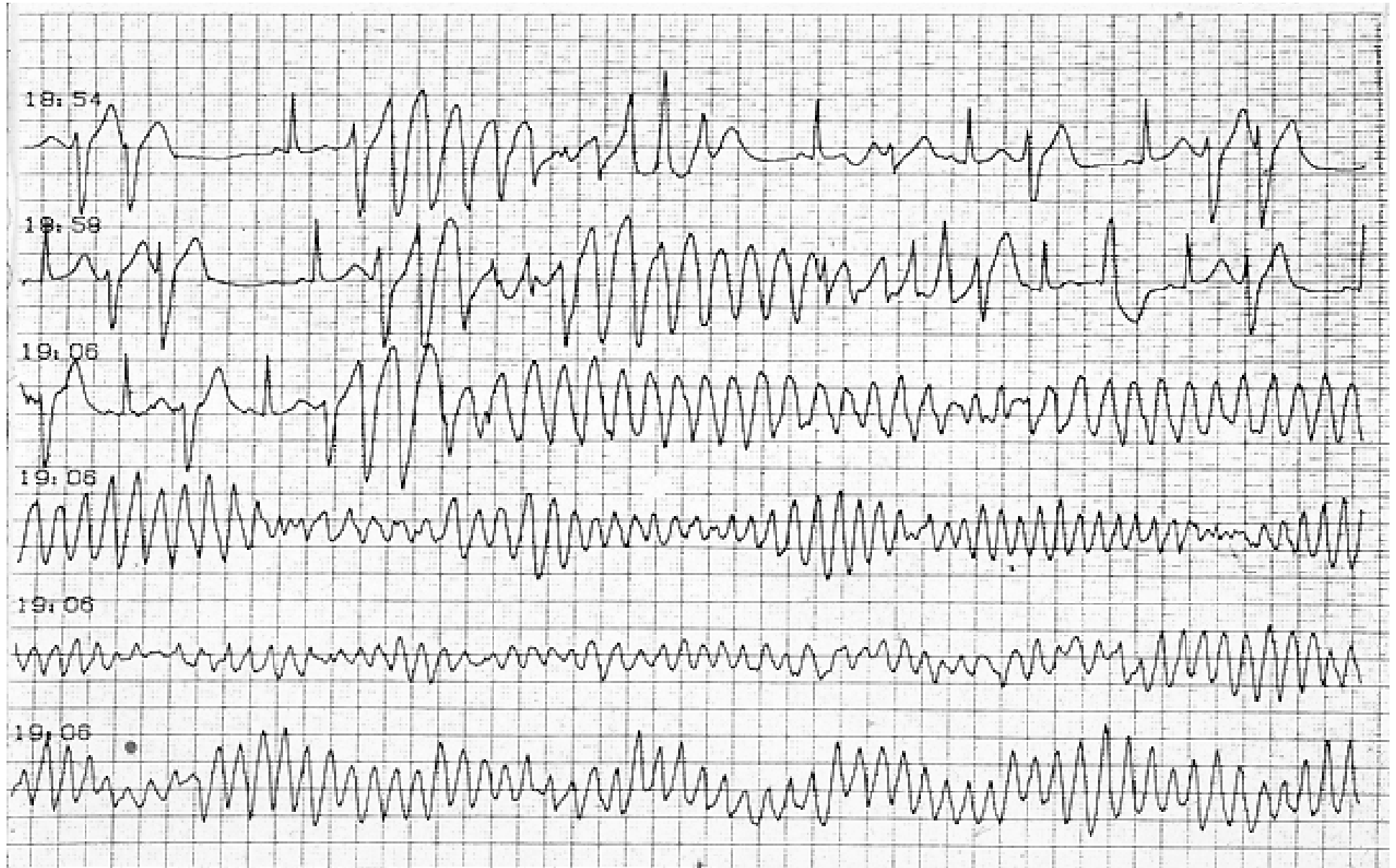
# SYNCOPE



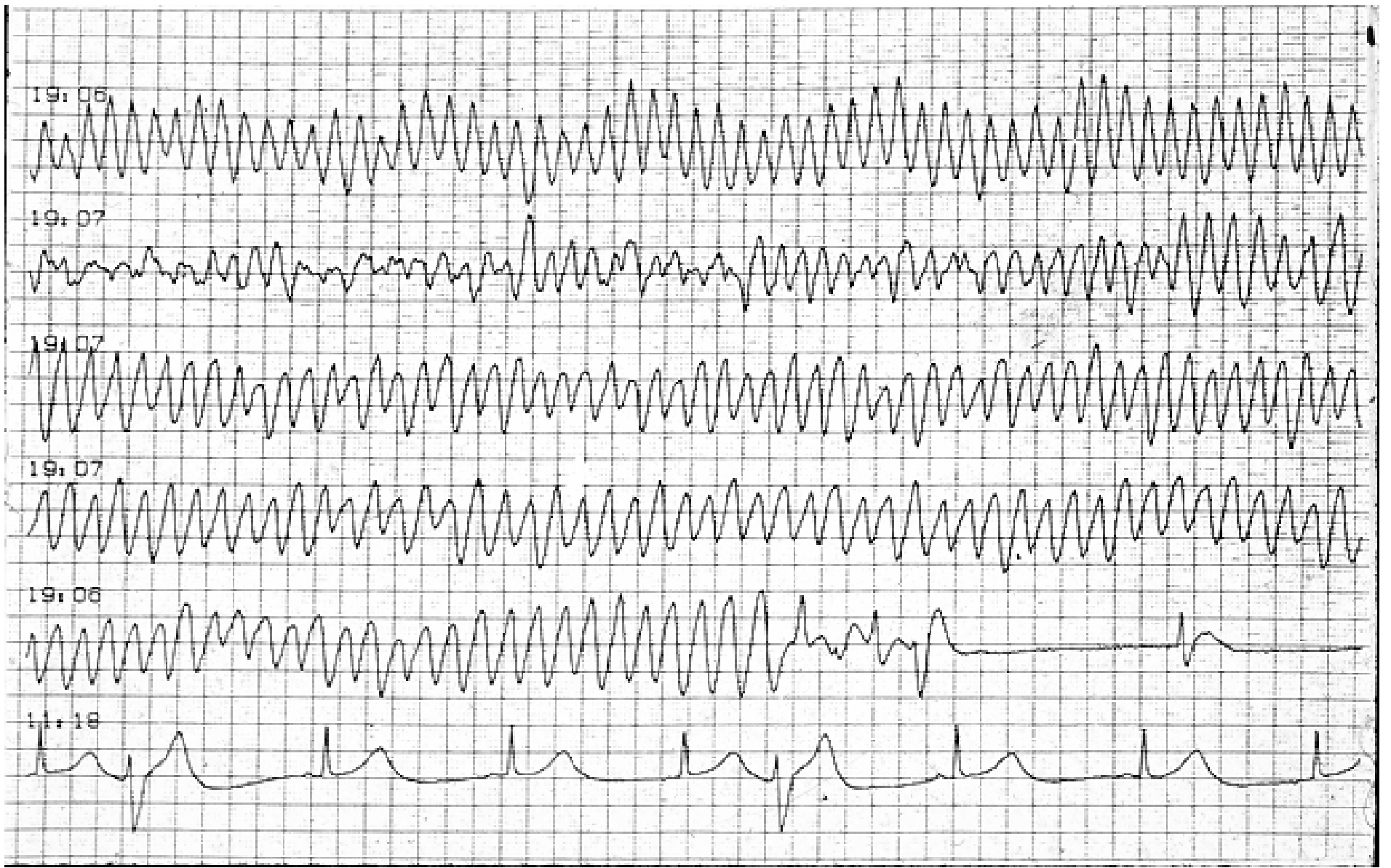
# ARRHYTHMIC SYNCOPE

1. Very rapid (hypotensive) VT or TdP
2. Afib or Aflut with very rapid ventricular response as in WPW
3. AV block
4. Sinus arrest

# ? Syncope or SCD



#2



# **SYNCOPE: CHRONOLOGY**

- 1. Time course of the syncopal event**
- 2. Syncope by age category (children, adolescence, adults, elderly)**

# **MAJOR CAUSES OF CV SYNCOPE IN CHILDREN & ADOLESCENCE**

- 1. Arrhythmic: HCM, LQTS, WPW,  
structural congenital heart disease,  
myocarditis**
- 2. Vaso-vagal/Orthostatic hypotension**

# MAJOR CAUSES OF ARRHYTHMIC SYNCOPE IN ADULTS

1. **Primary/genetic - VT/TdP**
2. **Coronary heart disease - VT**
3. **Cardiomyopathy - VT/TdP**
4. **WPW**
5. **Hypertrophic cardiomyopathy**

# **MAJOR CAUSES OF ARRHYTHMIC SYNCOPE IN THE ELDERLY**

- 1. CHD with rapid, hypotensive VT**
- 2. Sinus node dysfunction - transient sinus arrest**
- 3. Transient heart block - Lev's and Lenegre's syndrome**
- 4. Drug-induced arrhythmias**
- 5. Pacemaker/ICD malfunction**

# **SYNCOPE: BEDSIDE DIAGNOSIS**

- 1. History – time course of syncope; meds**
- 2. Cardiac exam with orthostatic BP**
- 3. Hyperventilation – ? repeat the symptoms**
- 4. 12-lead ECG**
- 5. Carotid sinus massage with ECG recording**

**76y/o F with history of recent unexplained syncope.**

**Response to brief carotid sinus massage in the office.**



**Does this maneuver explain her syncope?**

# **SYNCOPE: SPECIAL STUDIES BASED ON CLINICAL SUSPICION**

- 1. Non-invasive testing - ETT, ECHO,  
Holter, event recorder, tilt-table**
- 2. Invasive testing - coronary angio, EP  
study**