Wolff parkinson white Syndrome

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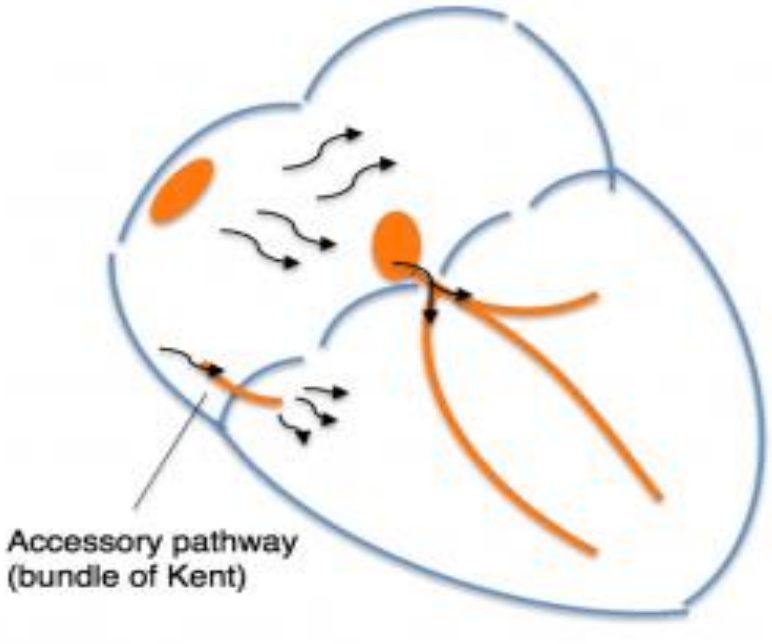
PGY-1

- Preexcitation is defined as a “premature activation of the ventricular myocardium by an impulse that travels by an anomalous path and…avoids physiologic delay in the atrioventricular junction” .



1) Mom frantically presents to the ED complaining her 2 month baby has become pale and lethargic. She says that the baby hasn't been himself the past 2days; not eating, very irritable. Yesterday, she had brought him to her PCP where he had a low grade temp. PCP sent him home saying he had viral illness. Today, the baby's has hardly been eating at all, and is very pale and lethargic. Vitals: T:37.6C, RR: 70, pulse 240bpm, BP 71/50. Respiratory exam remarkable for increased work of breathing, crackles bilaterally. Cardiac monitor revealing SVT. What is the next best step in management?

- A. Vagal maneuvers
- B. Adenosine
- C. Synchronized cardioversion
- D. Unsynchronized cardioversion
- E. Amiodarone

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Infants

- SVT may present with heart rates of 220 to 270 beats/min. Infants with prolonged SVT may have a history of poor feeding, pallor, irritability, and lethargy.
- The arrhythmia often is diagnosed after 24 or 48 hours of sustained SVT, when hemodynamic decompensation arises and congestive heart failure develops.

School-age children/adolescents

- Can verbalize symptoms and, therefore, usually are seen before developing heart failure. They may complain of "beeping in my chest," heart pounding/palpitations, chest pain, shortness of breath, sweating, or exercise intolerance. They almost never experience syncope.

2) You have responded effectively, and successfully converted your patient to sinus rhythm. On repeat ECG, what characteristic findings might be seen?

- A) Increased PR interval, slurring/slow rise of the initial upstroke of the ORS complex, narrow QRS complex
- B) Increased PR interval, slurring/slow rise of the initial upstroke of the QRS complex, widened ORS complex
- C) Shortened PR interval, slurring/slow rise of the initial upstroke of the QRS complex, widened QRS complex
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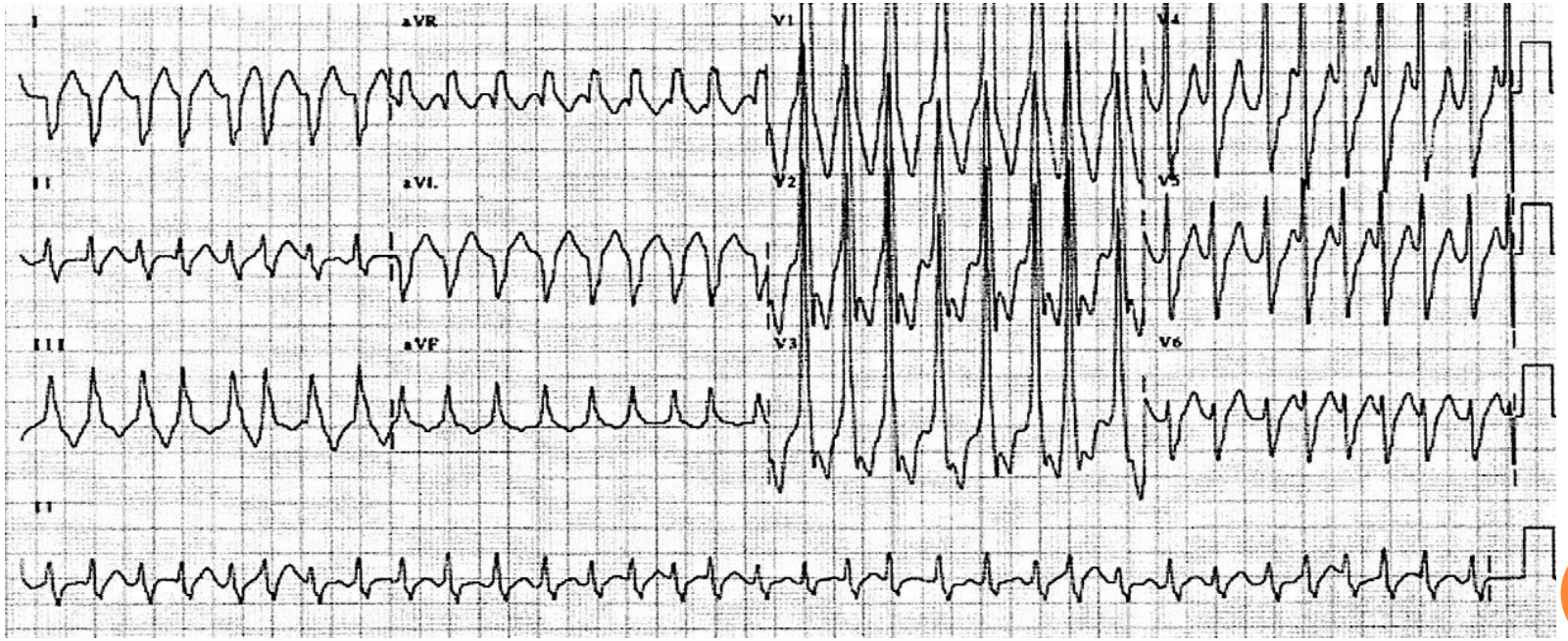
- Approximately 60% of children with SVT will manifest their arrhythmia within the first year of life, most often by 3 to 4 months of life
- *Up to 20% of newly diagnosed SVT in children will reveal WPW syndrome after conversion to sinus rhythm*

- 1) 12-yo boy with Wolff-Parkinson-White syndrome comes to the ED c/o palpitations and racing heartbeat for the past 12 hours. T is 37.0°C (98.6°F), pulse rate is 160/min, respirations are 24/min, and blood pressure is 110/60 mmHg. O2 Sat is 96% on room air. ECG shows atrial fibrillation:



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4) Which of the following malformations would most commonly found on an echocardiogram in a patient with WPW?

A) L- transposition of the great vessels

B) Ebstein's anomaly

C) Hypertrophic cardiomyopathy

D) Tetrology of Fallot

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REFERENCES

- The American Journal of Emergency Medicine. Volume 27, Issue 7, September 2009, Pages 878–888. Preexcitation syndromes: diagnostic consideration in the ED. Dustin G. Mark, MDa, William J. Brady, MDd, Jesse M. Pines, MD, MBA, MSCE
- Focus on Diagnosis: Cardiac Arrhythmias in Children . Eric A. Biondi. *Pediatrics in Review 2010; 31:375-379; doi:10.1542/pir.31-9-375*
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