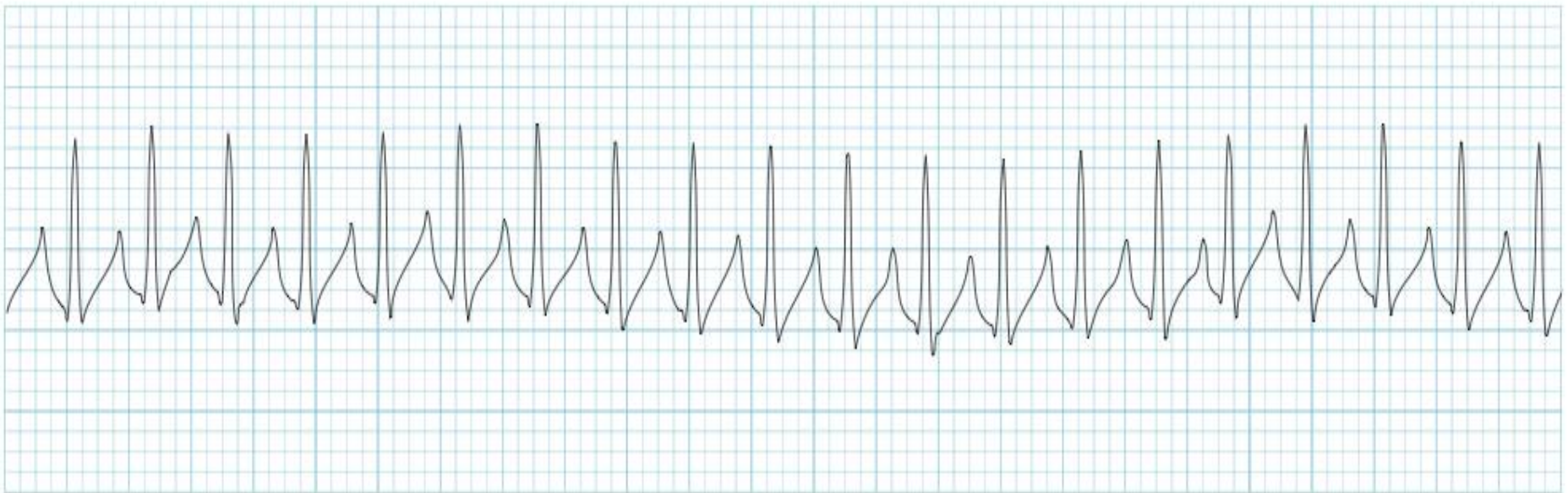


# Case 1

2 month old male born full term via an uncomplicated SVD with an unremarkable antenatal history presents to the ER with irritability, poor feeding and fast breathing. Examination reveals an active well perfused acyanotic infant with a T 37.2 RR 70 HR 280 BP O<sub>2</sub>sat 100%. ECG is shown below. What is the most appropriate next step.

---

# Case 1



<http://lifeinthefastlane.com/ecg-library/svt/>

---



# Case 1

A. Synchronized cardioversion 0.5-1J/kg using infant paddles

B. Digoxin 10mcg/kg IV, half given stat and  $\frac{1}{4}$  dose Q8H-Q12H x2

C. Apply small plastic bag with ice and water to upper half of child's face 15-20sec

D. Calcium gluconate 100mg/kg IV slow push not exceeding 100mg/minute

---

# Case 1 - Start with your Basic

- ABCs
  - Hemodynamic Assessment
    - Hypotension, heart failure, shock, decreased level of consciousness
  - 15 Lead ECG
    - 12 lead plus V3R, V4R and V7
  - Continuous ECG
-



# Case 1 - Hemodynamically Stable

- Vagal maneuvers
    - Infants/young children: bag filled with ice to upper half of face, not occluding nose, 15-30sec (diving reflex, successful 30-60%)
    - Rectal stimulation with thermometer
    - Valsalva maneuver -> bear down 30sec
    - Blow through obstructed straw
    - ECG continuously monitored
    - Response seconds
    - DO NOT used carotid massage or ocular pressure
-

# Case 1 - Hemodynamically Stable

- Adenosine
    - Drug of choice
    - Supine, most central catheter, rapid injection (1-2sec) with 5ml flush immediately after
    - Dose 0.1mg/kg (not exceeding 6mg/dose) doubled to 0.2mg/kg (not exceeding 12mg/dose)
  - Procainamide and Amiodarone
  - Digoxin – not used (delay in therapeutic, narrow range, not in WPW)
-



# Case 1 - Hemodynamically UNstable

- Synchronized cardioversion
  - 0.5-1.0J/kg up to 2J/kg
  - *Consider Adequate Sedation or General Anesthesia*
-

# Case 2

9yo male presents to ER % palpitations, chest discomfort, dizziness and one episode of vomiting. He has a PMH of epilepsy, asthma and is allergic to seafood. In the ER he is found to be acyanotic, interactive and conversing comfortably with vitals of T 37 RR 24 BP 105/68 P 240 O<sub>2</sub>sat 100%. In treating his SVT, what in his history makes you use adenosine with caution?

---



# Case 2

A. Vomiting

B. Epilepsy

C. Asthma

D. Seafood allergy

---

# Case 2 – Side Effects of Adenosine

- Bronchospasm
  - Bradycardia
  - Headache
  - Shortness of breath
  - Dizziness
  - Nausea
-



# References

Uptodate.com

emedicine.com

PALS

---