Paeds Weds Sim: SVT

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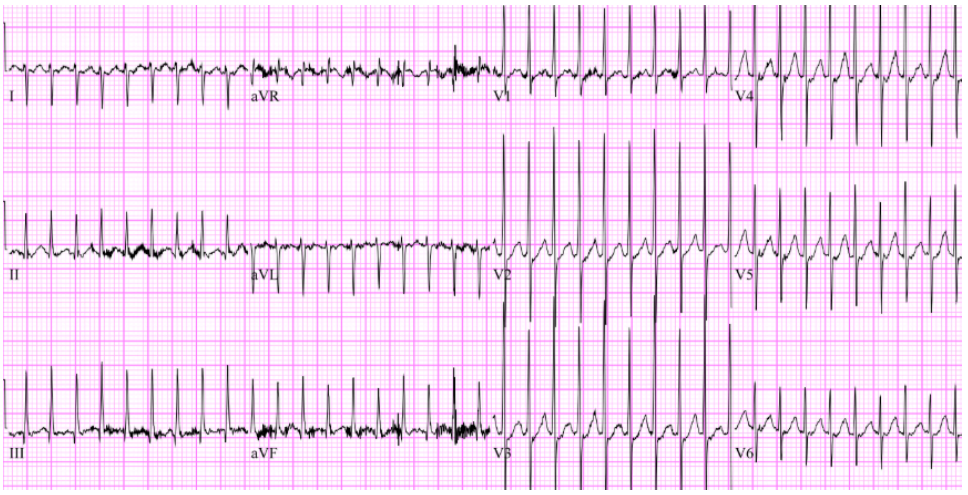

Case:

6 year old presenting to ED.

Pale, tachycardic on arrival. HR 220

Previously well child,. No recent illness

ECG monitoring applied- narrow complex rhythm, rate 220. Absent P waves

SVT algorithm requested

Key treatment points:

Maintaining A to E approach, applying oxygen

Recognizing unwell child – calling for help early

Defibrillator pads applied

Vagal manoeuvres attempted- single sided carotid massage/ Valsalva

IV access sited (large proximal vein)

Adenosine requested 100mcg/kg, followed by rapid saline flush

Brief slowing of rhythm only

Repeat adenosine given at 200mcg/kg after 2 minutes

Converted to sinus rhythm HR 80-90. 12 lead ECG requested

Decision to transfer to HDU for cardiac monitoring and discussion with paediatric cardiology

Points for discussion

SVT:

- Generally produces HR > 220 (Sinus tachycardia characterised by a heart rate < 200)
- No beat-to-beat variation in heart rate in SVT
- P waves classically not seen in SVT but if present negative in leads II, III and AVF in SVT (upright in I and AVF in sinus tachy)
- Rapid termination of SVT with treatment, gradual slowing with sinus tachycardia
- Sinus tachycardia usually seen with history consistent with shock / preceding illness (gastroenteritis/ sepsis), SVT - child previously well/abrupt onset

Vagal manoeuvres: slow AV conduction

- Diving reflex: wrapping infant in a towel and immersing face in cold/ ice water for 5 seconds or applying rubber glove filled with ice water over the face in older children
- Single sided carotid massage
- Valsalva manoeuvre- blowing against a 10ml syringe/ straw

I have attached the APLS guideline for the management of SVT and an ECG showing SVT

https://www.apls.org.au/algorithm-svt

Hope that was all helpful!