



چهارمین کنگره دوسالانه
استاد امیر حکیمی
The 4th Pediatric Congress
Professor Amirhakimi
F.A.R.S SHIRAZ
۲۵ اردیبهشت ۱۴۰۳

بزرگوارکننده:
انجمن متخصصین کودکان استان فارس
گروه کودکان دانشگاه علوم پزشکی شیراز

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دبیر اجرایی: دکتر حمید محمدی
دبیر اجرایی: دکتر حمید محمدی

دارای ۲۰ امتیاز
بازآموزی مداوم

وب سایت رسمی کنگره
جهت ثبت نام حضور در کنگره
ارسال پوستر و سایر اطلاعات تکمیلی
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تلفن های تماس با دبیرخانه علمی کنگره
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(در قالب ۱۲ اینل تخصصی)

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مهلت ارسال مقالات: ۱۵ اردیبهشت ۱۴۰۳

Tips and tricks in Pediatric ECG

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Fars Pediatric Association



4th
The

Pediatric Congress Professor Amirhakimi

14-17 May 2024-Fars-Shiraz

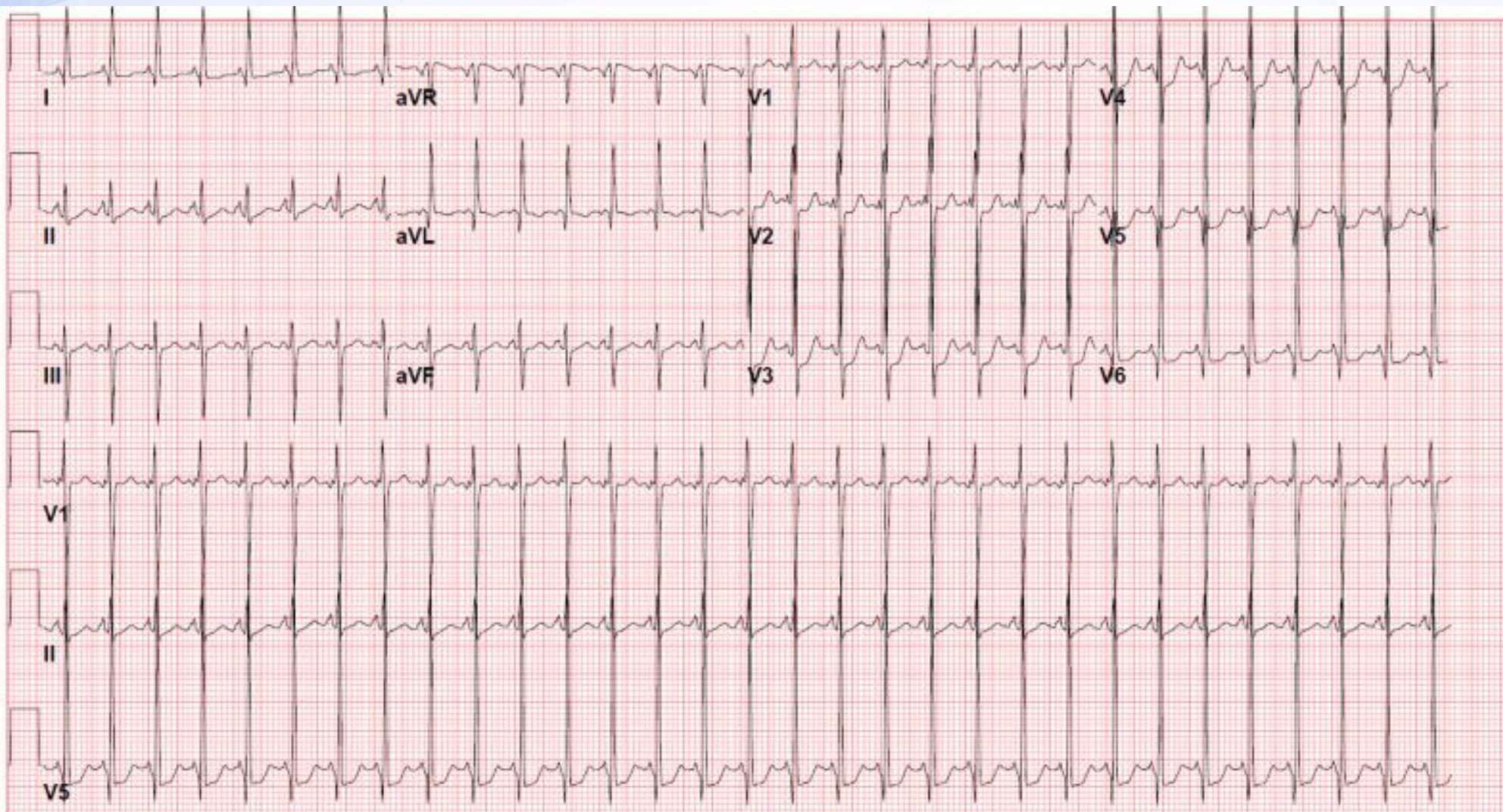
چهارمین کنگره دوسالانه کودکان استاد امیر حکیمی

۲۵ - ۲۸ اردیبهشت ۱۴۰۳ - فارس - شیراز



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A 4 days old neonate with the following ECG
Which of the following choices is more probable for this cases



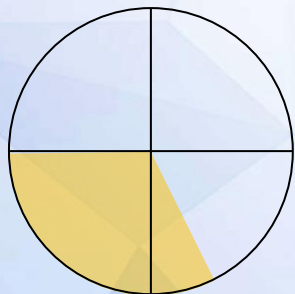
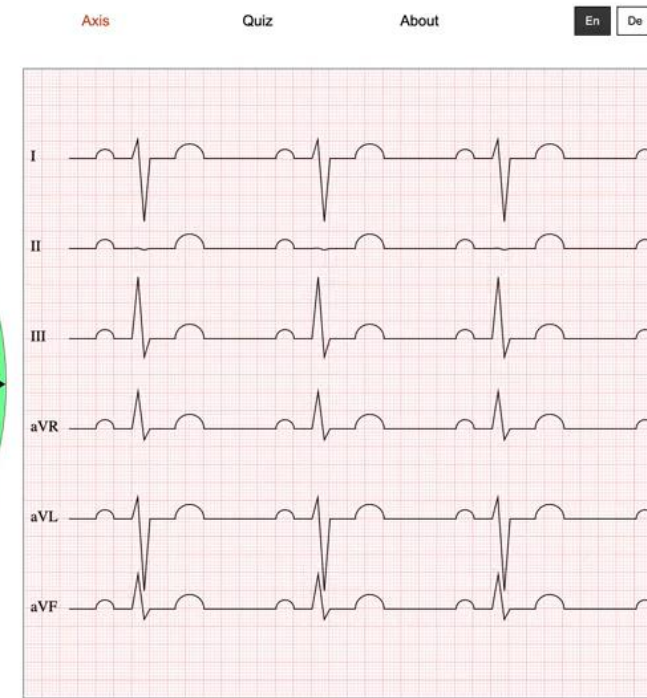
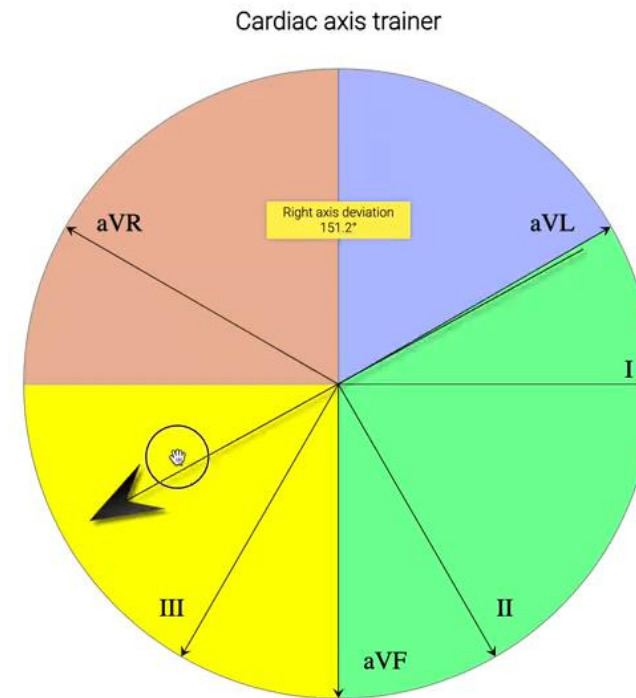
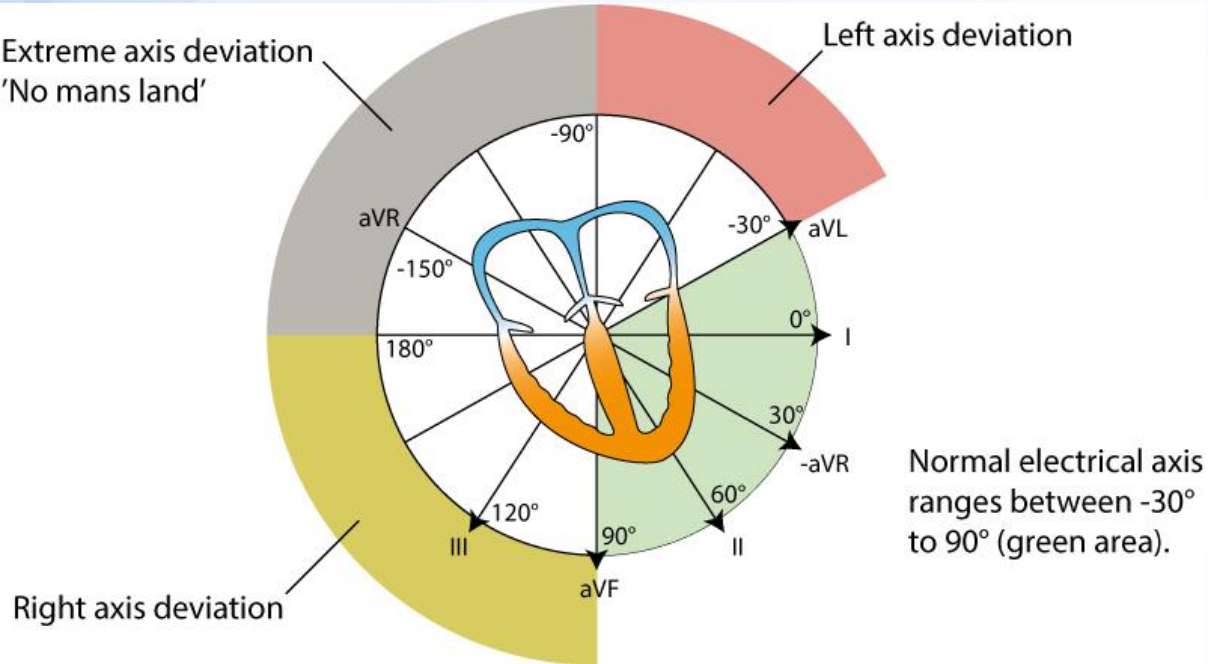
1- Normal Sinous Rhythm(NSR)

2- SVT

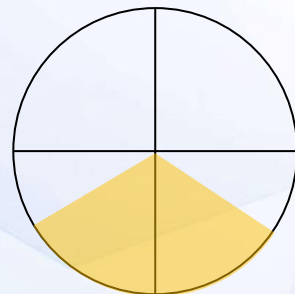
3- Cyanotic heart disease

4- Acyanotic Heart disease

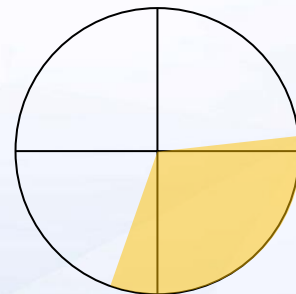
Cardiac axis rotation



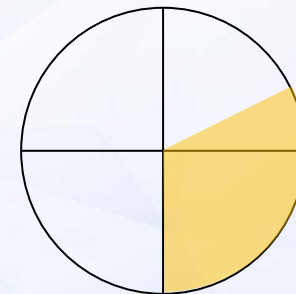
1 month



3 months

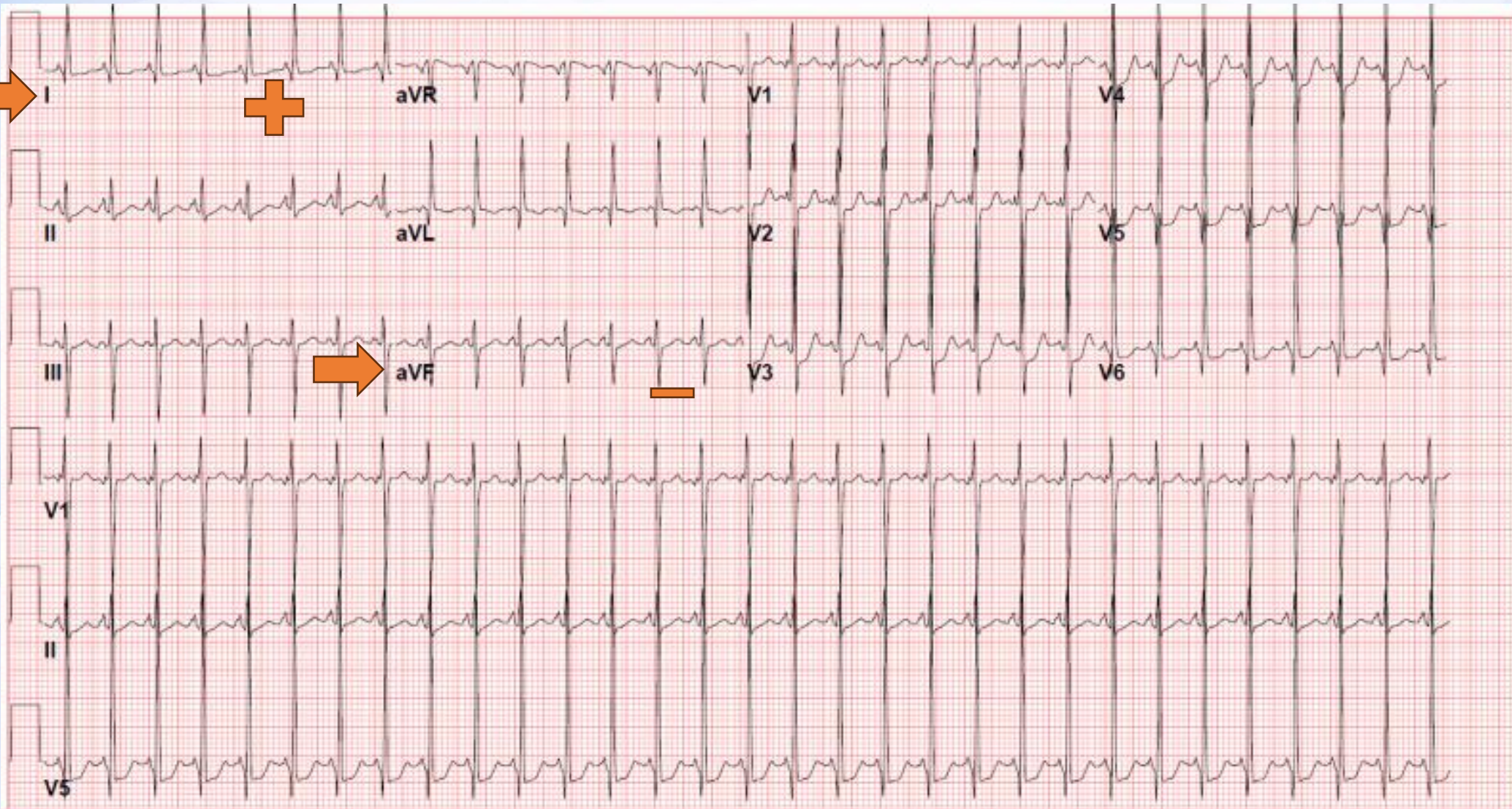


6-9 months



1-3 years

Let's back to case: Lt axis deviation in a neonate



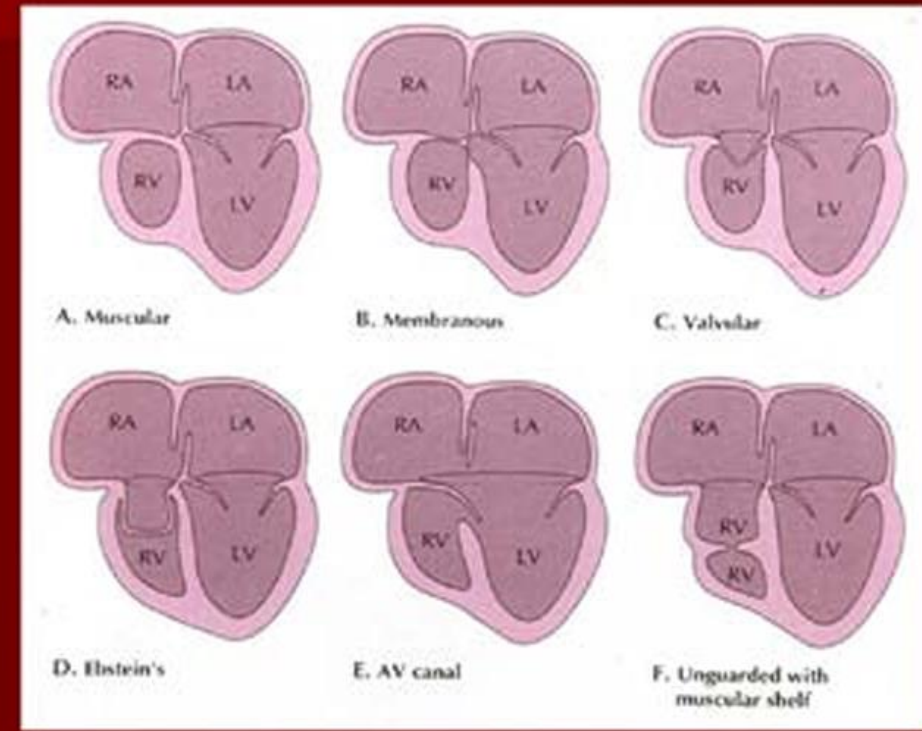
Axis
-20

Lt axis deviation in neonatal period

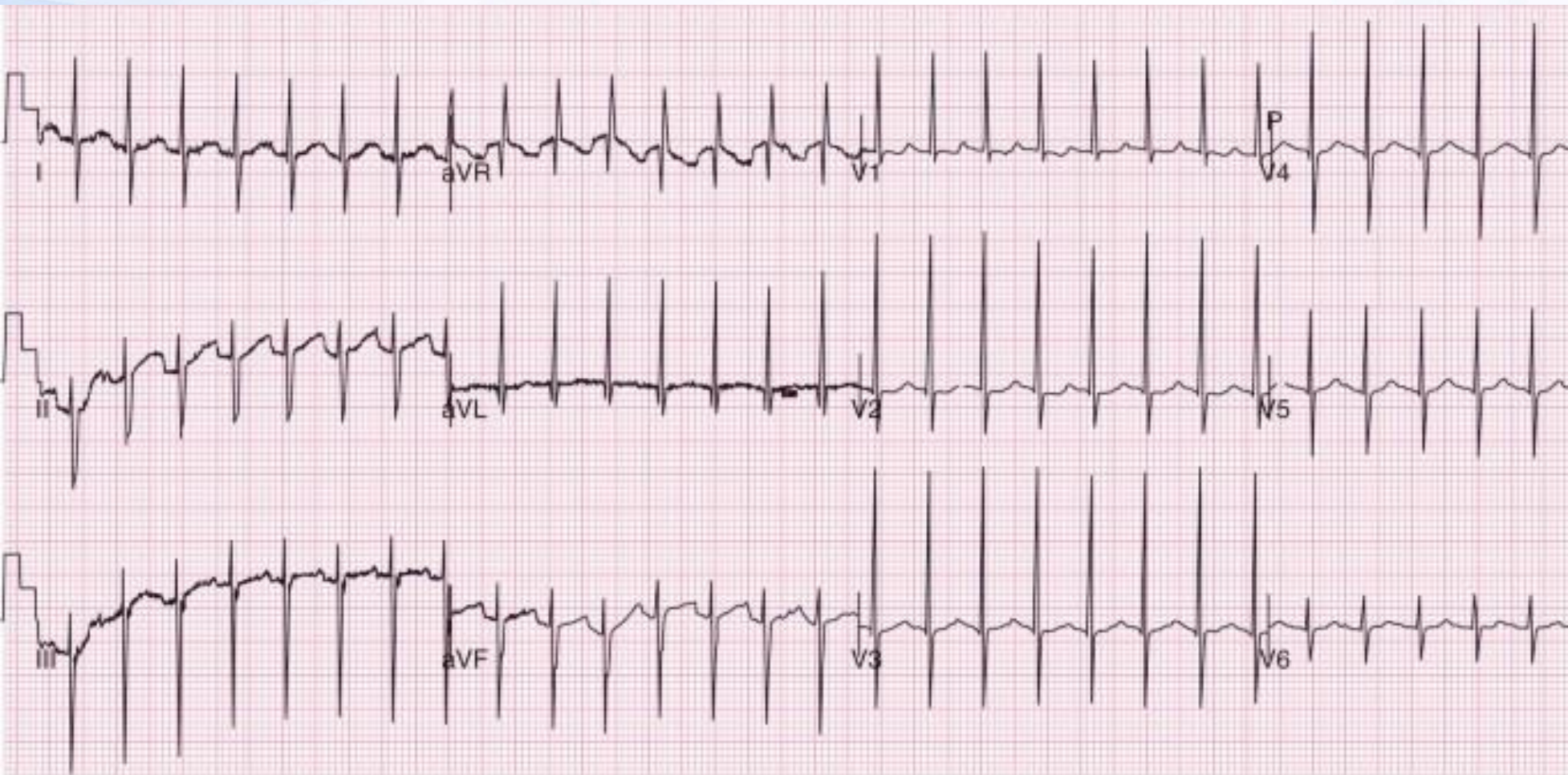
Indicate to Rt side
hypoplasia and highly
suspicious for **Cyanotic
heart disease**

- 1- Normal Sinous Rhythm(NSR)
- 2- SVT
- 3- **Cyanotic heart disease**
- 4- Acyanotic Heart disease

MORPHOLOGY OF THE ATRETIC VALVE

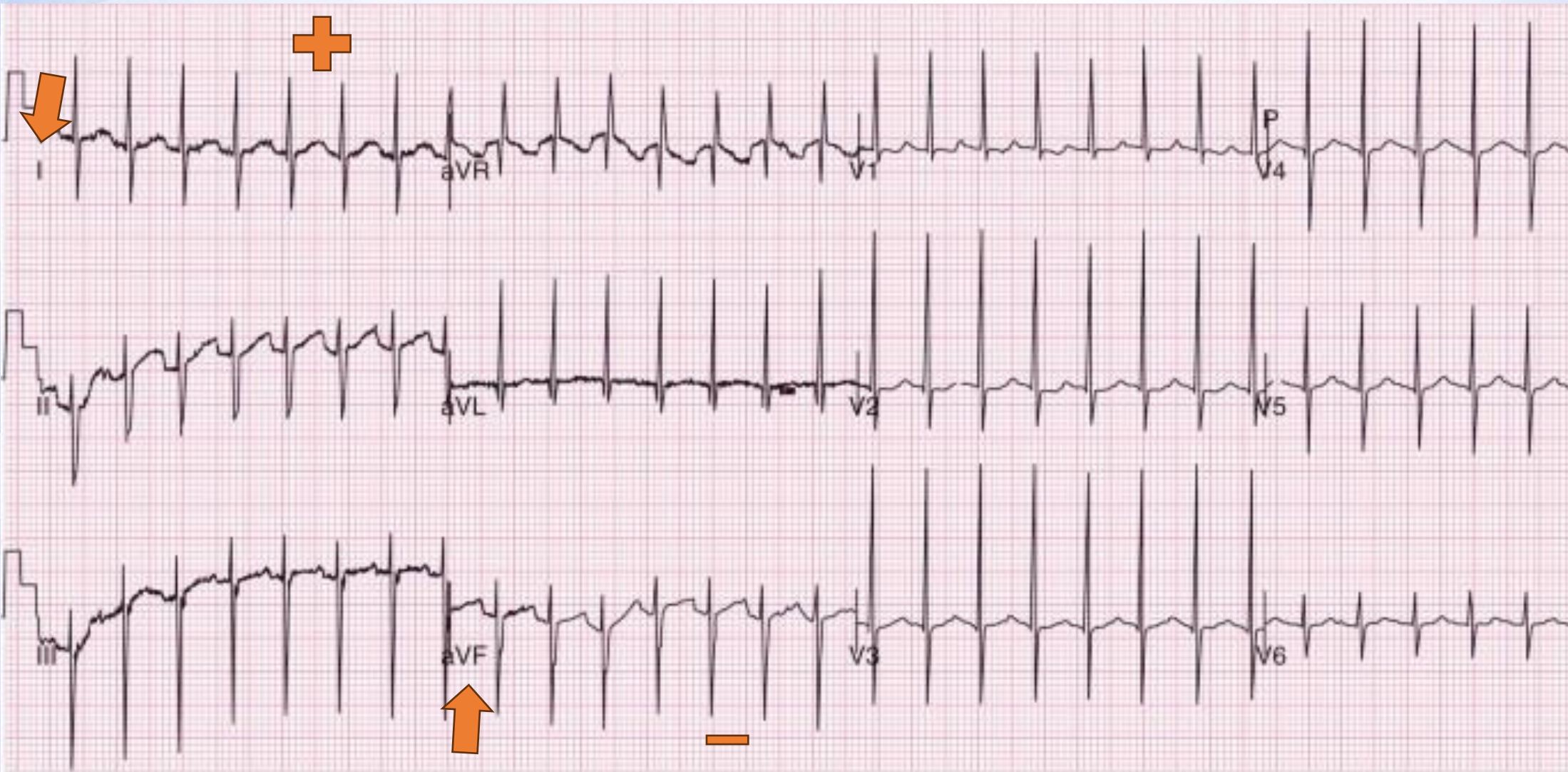


Nursing of well baby unit showed this ECG and want to know the discharge plan of a 1 days old neonate



- 1- Discharge
- 2- Check for metabolic disease
- 3- check for electrolyte imbalance
- 4-Check for chromosomal anomaly

Superior axis deviation in a childhood



Axis
-70

Superior axis deviation in a childhood

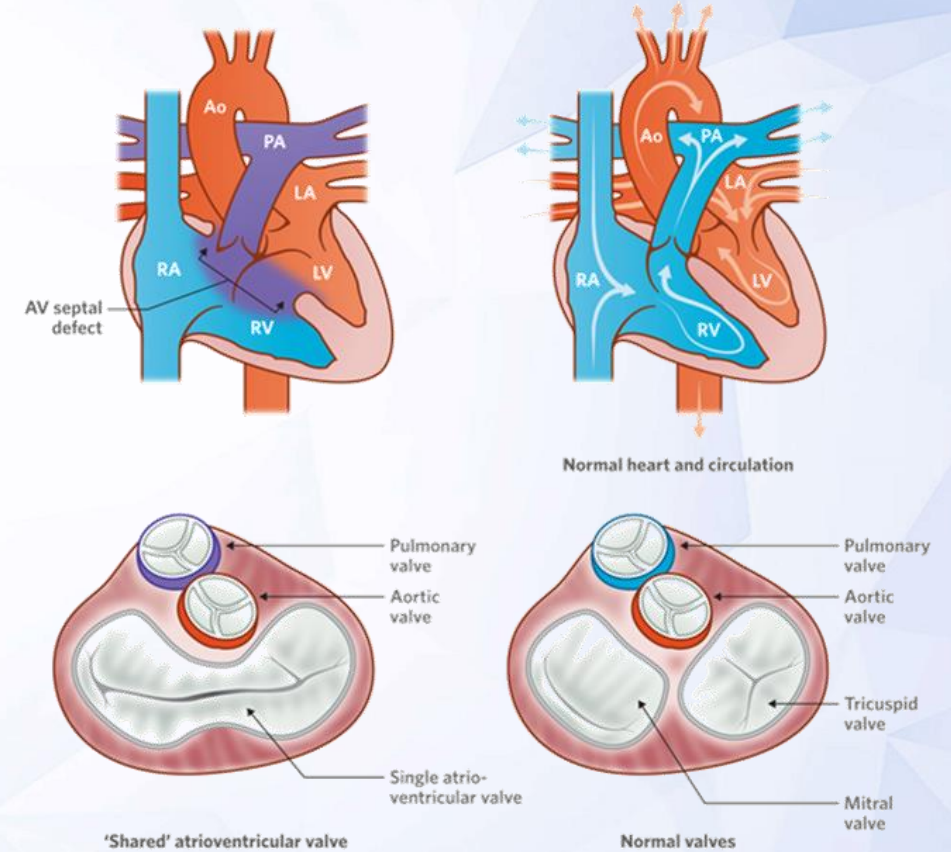
Echo recommended
Check for Clinical sign of Down Sx

- 1- Discharge
- 2- Check for metabolic disease
- 3- check for electrolyte imbalance
- 4- Check for chromosomal anomaly

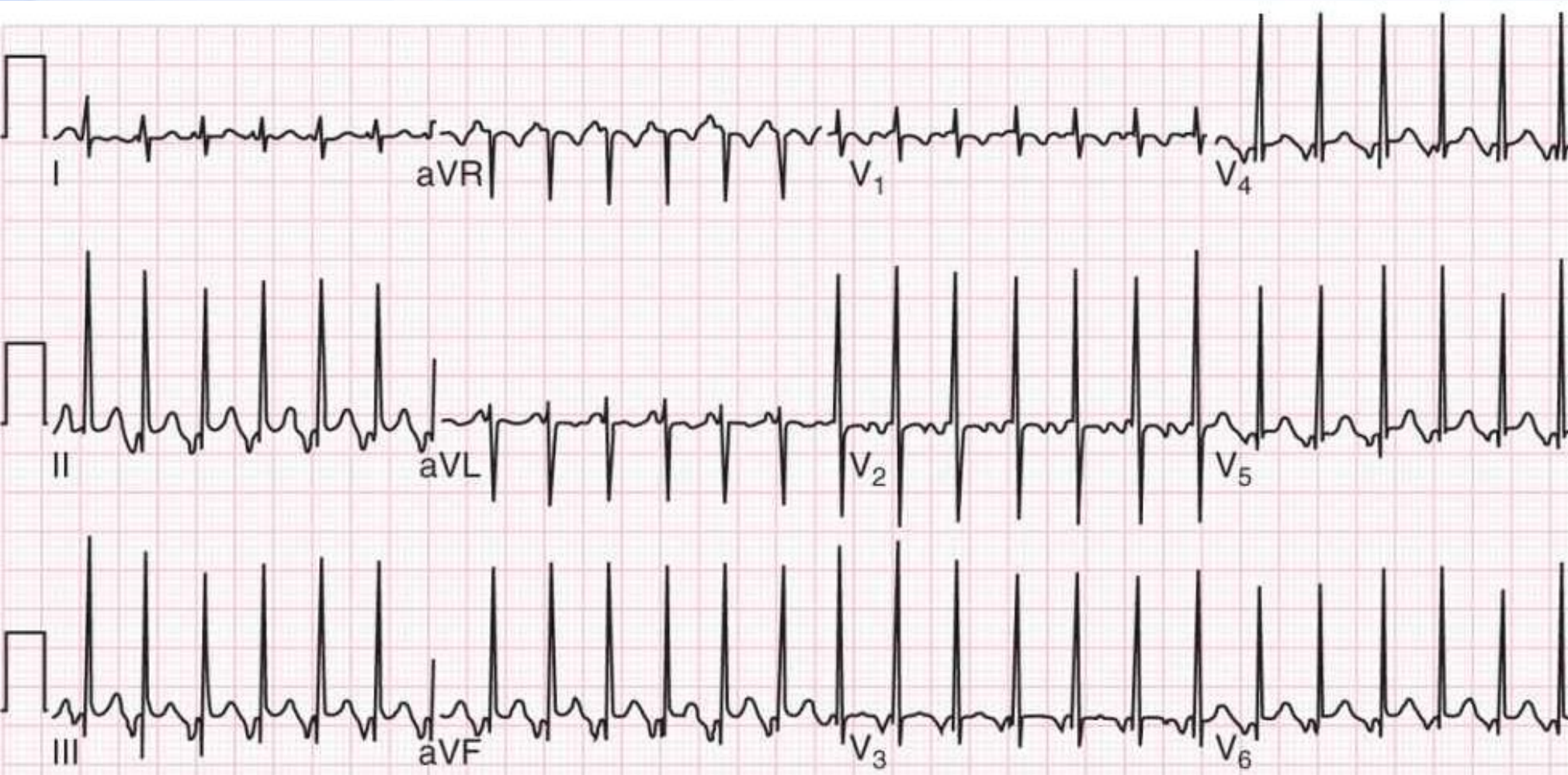
Superior axis + Down Sx →

**Atrioventricular septal defect
(endocardial Cushing defect)**

Atrioventricular septal defect



You are visiting an agitated neonate in well-baby unit with the following ECG, what is your Dx?



1- Dysrhythmia is very likely

2- CHD is very likely

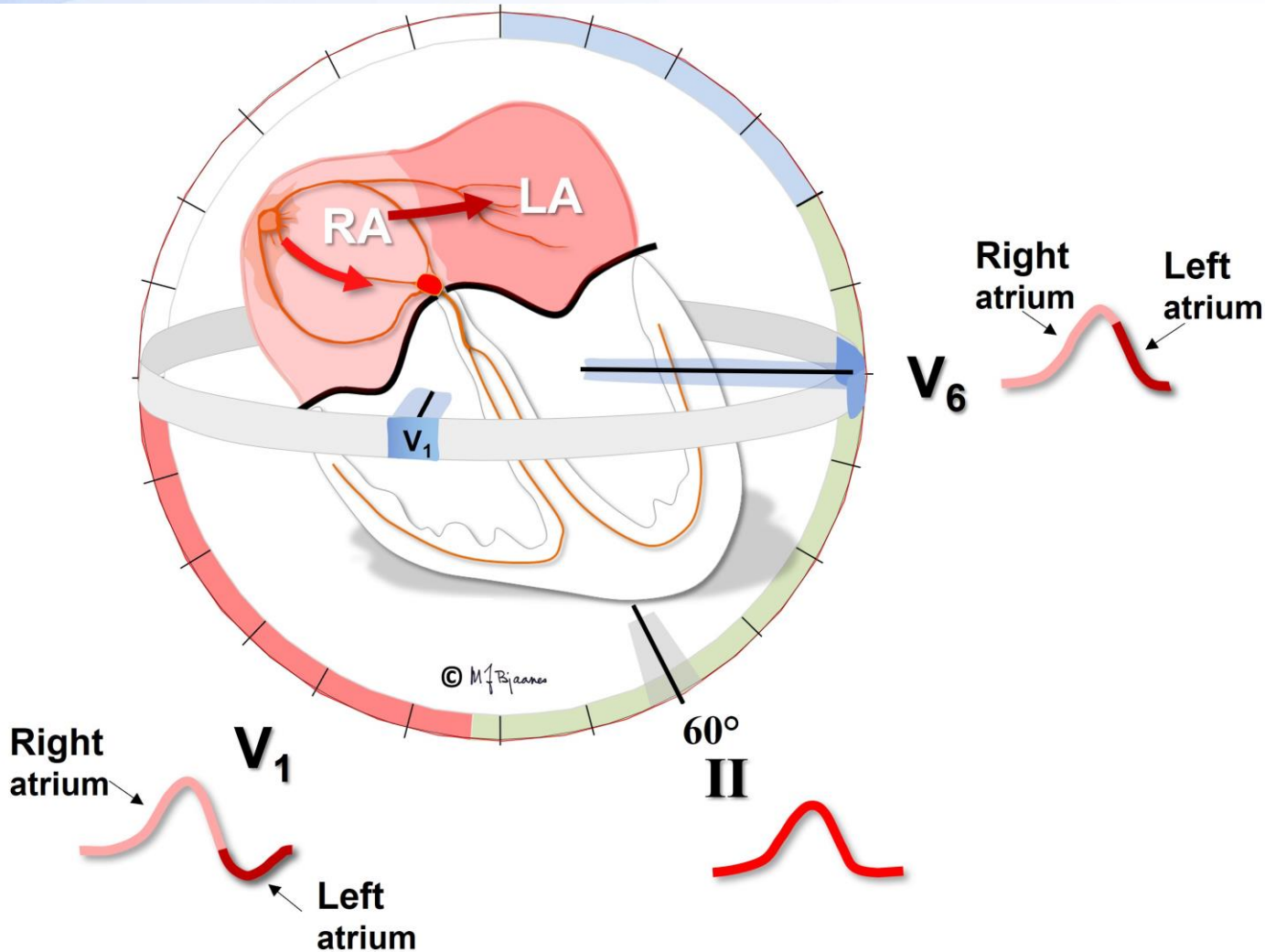
3- Electrolyte imbalance is very likely

4- Sinus tachycardia

Consider P wave axis

Normal P wave should be + in lead I, II and avf

Negative P wave in inferior leads should be recheck for dysrhythmia special in the setting of persistent tachycardia (R/O PJRT)



- 1- Dysrhythmia is very likely
- 2- CHD is very likely
- 3- Electrolyte imbalance is very likely
- 4- Sinus tachycardia

Dynamicity of T wave in childhood age

- In Rt precordial Lead (v1 –V3) T wave has dynamic appearance depend on the age:
 - + in first week
 - - in 1weeks to 6 years old
 - Return to adult form (+) after 6 years (may be negative upto adolescent in female

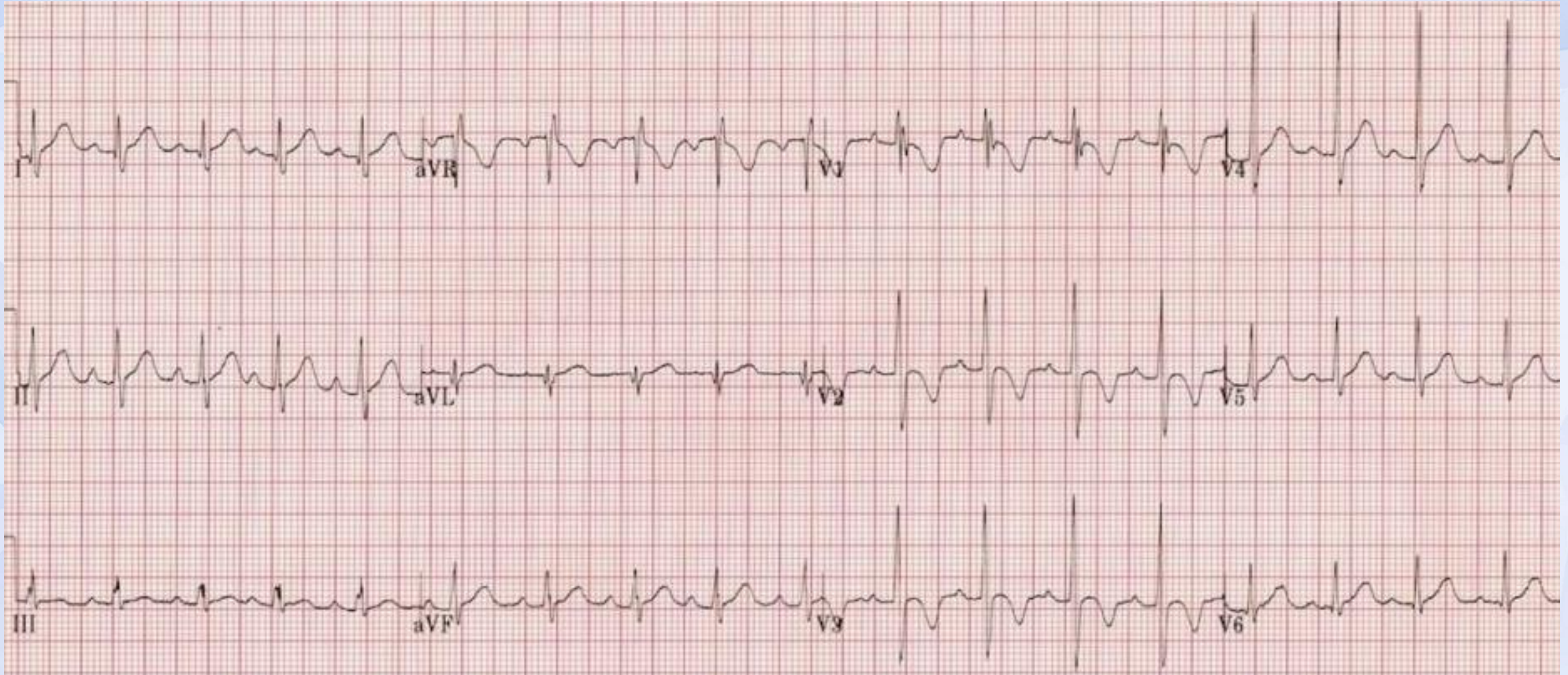
1- check troponin

2- Hospitalized for IVIG

3- Holter for 24 hours

4- No need Cardiac W/U

You are visiting a 9 years old boy with the following ECG, the CC on and off chest pain. Which of the following is your plan?



1- No need further cardiac evaluation

2- Refer for Echocardiography

IRBBB

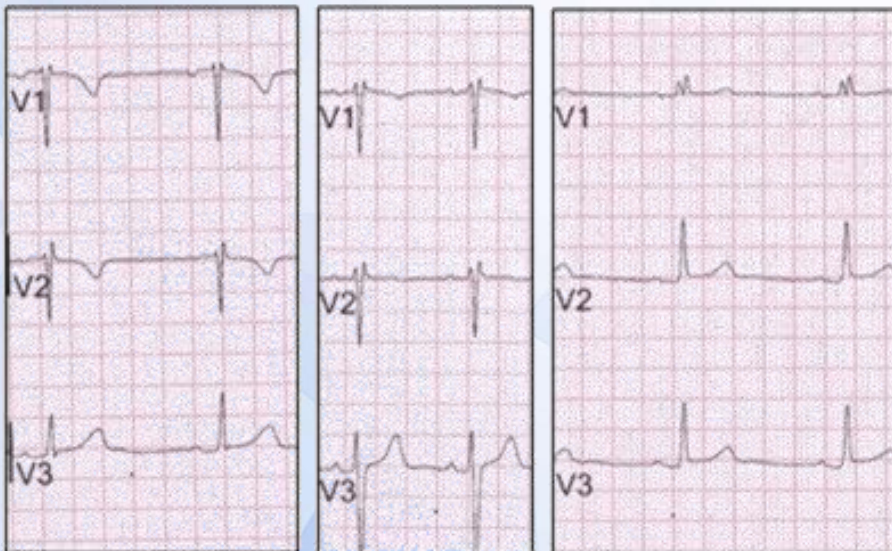
- Incomplete RBBB is defined as an RSR' pattern in V1-3 with QRS duration < 120ms and normal axis.
- It is a normal variant, commonly seen in children and athlete heart (of no clinical significance).
- RSR' or rSR' or RSr'
- 1- No need further cardiac evaluation
- 2- Refer for Echocardiography

Normal

76 ms

90 ms

96 ms



Incomplete RBBB

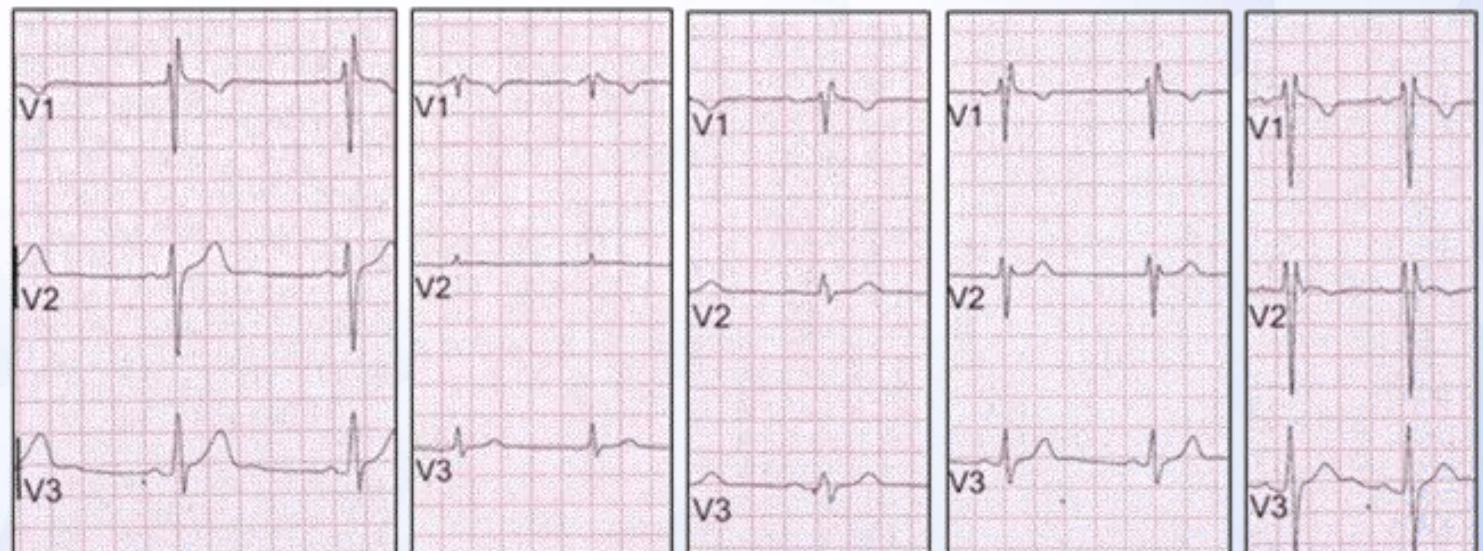
100 ms

102 ms

108 ms

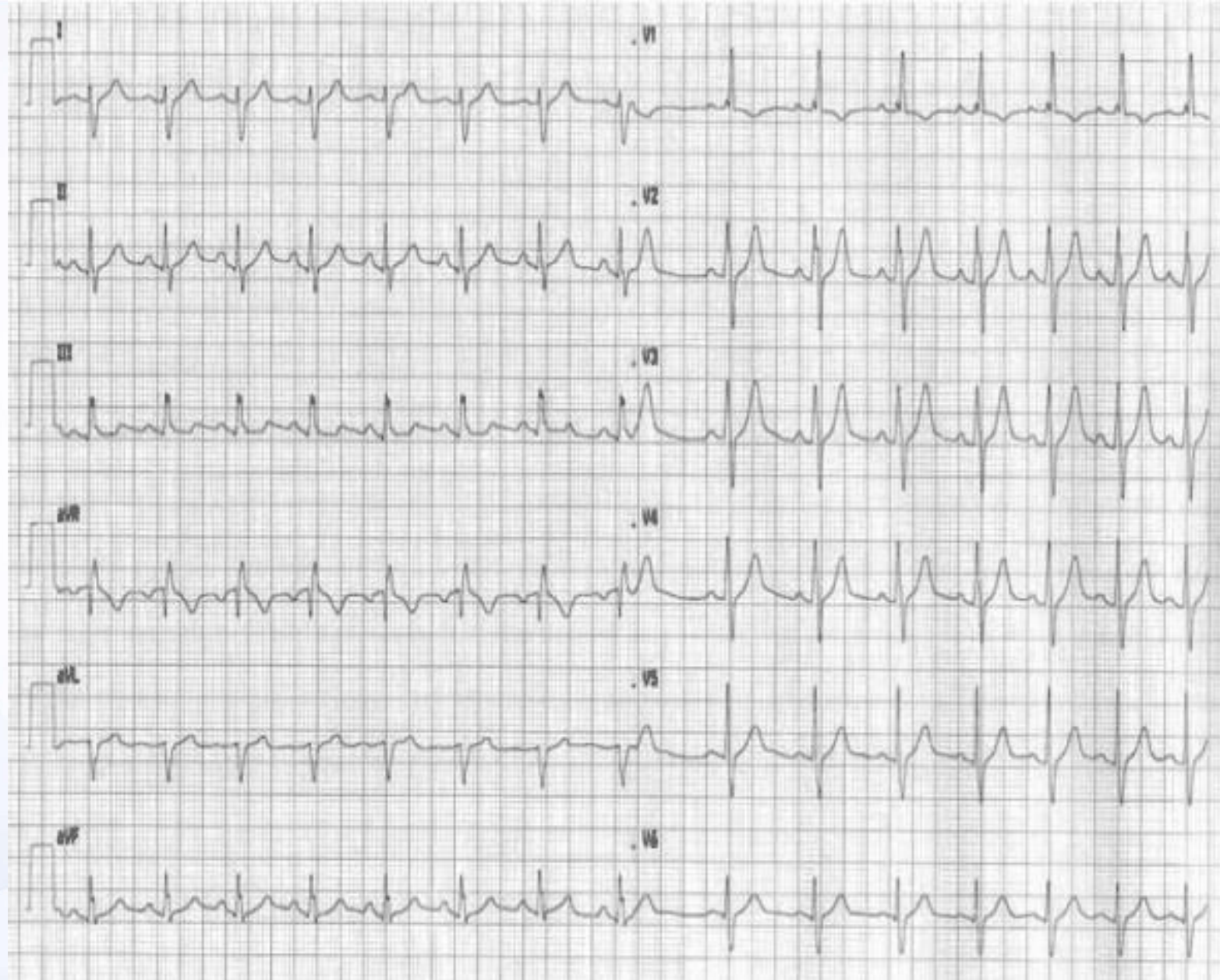
112 ms

118 ms

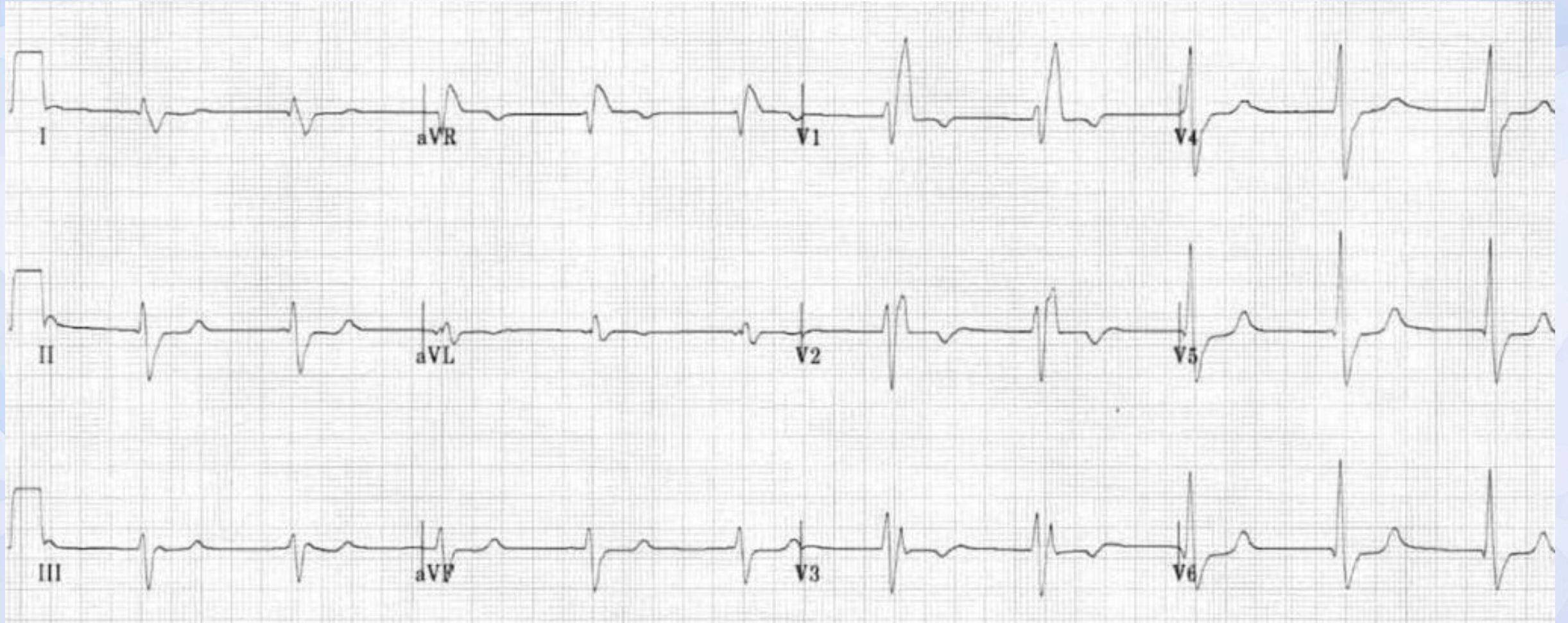


You are visiting a 9 years old boy with the following ECG, the CC is easy fatigue. Which of the following is your plan?

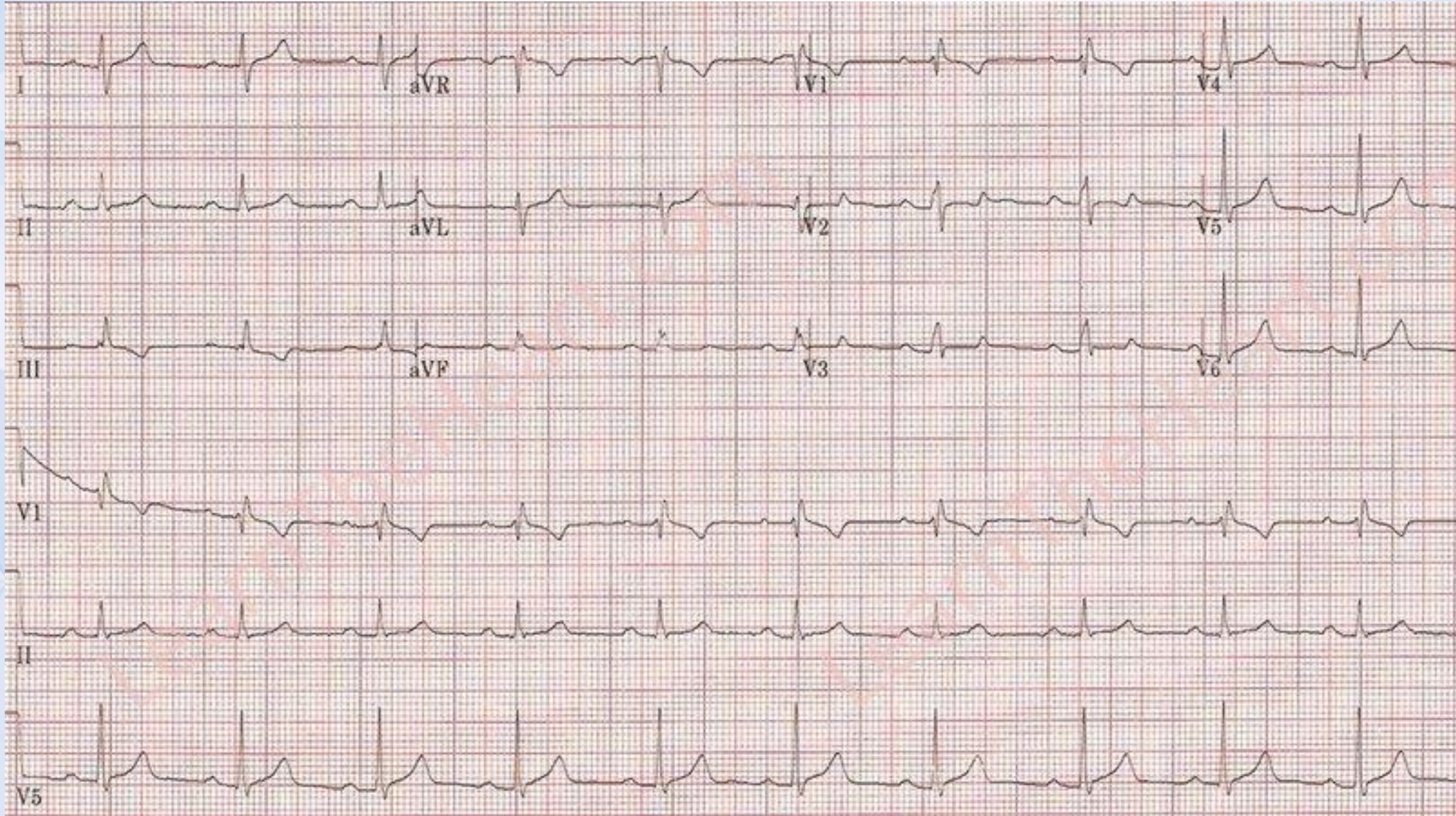
- 1- No need further cardiac evaluation
- 2- R/O VSD
- 3- R/O Cyanotic Heart disease
- 4- R/O ASD



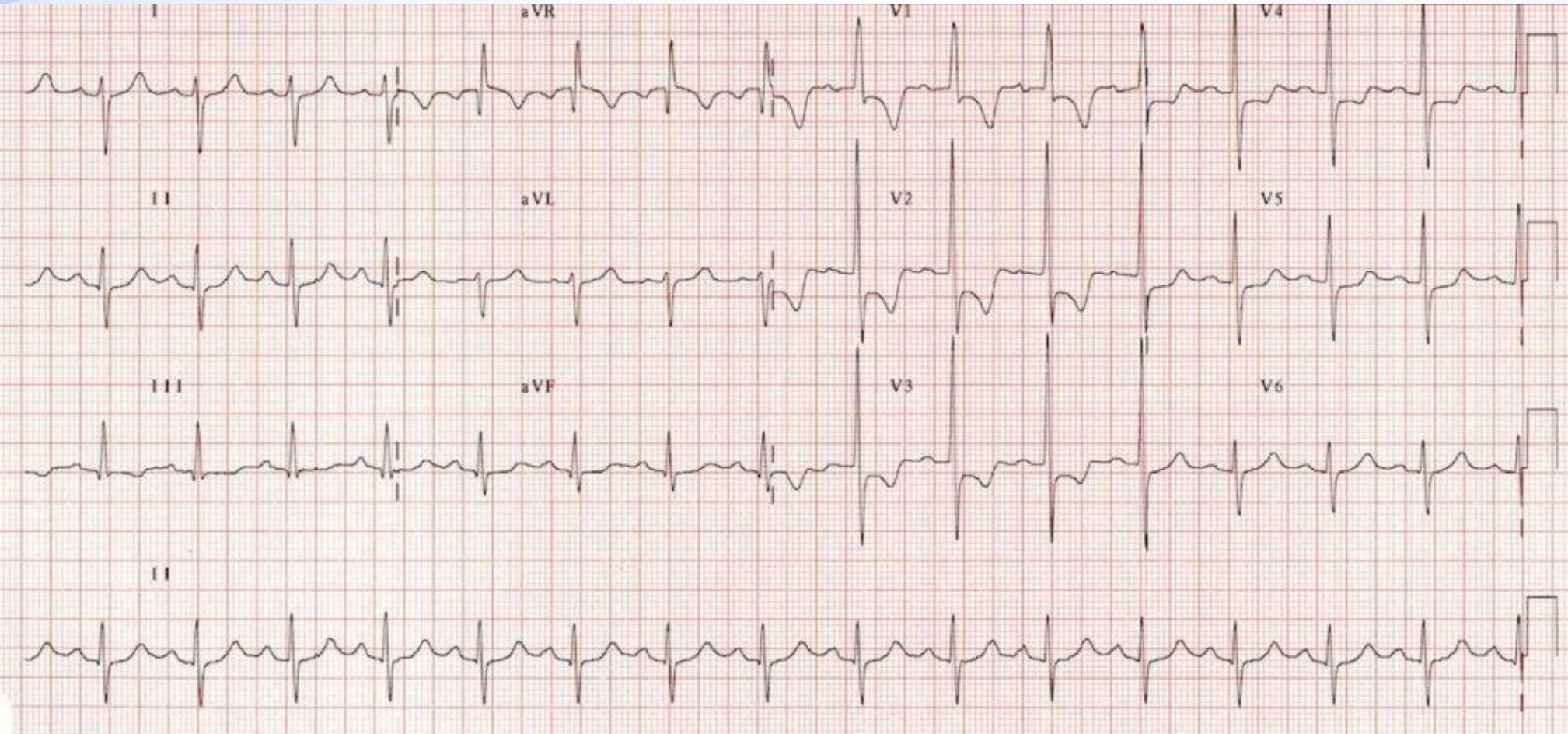
RBBB with wide QRS → Need echocardiography



RBBB with wide QRS or axis change → Need echocardiography



A 2 years old girl, a known case of VSD, visited by you; the Medical sheets showed this ECG, What is your interpretation for this case?



- 1- Compatible finding with VSD
- 2- Neglected case of VSD
- 3- Ischemic change in Rt precordial
- 4- Normal variation of ECG