

ECG's (2)

Questions: Session 2 STEMI

STEMI

This pathway document is intended for use by ED medical and nursing staff, as well as Gen Med and CCU nurses

STEMI / REPERFUSION ELIGIBILITY CRITERIA

aVR STE, Wellen's syndrome, De Winter's T waves, Sgarbossa's criteria in old LBBB do not currently fit formal STEMI definition and should be discussed with on call cardiologist on case-by-case basis.

STEMI ECG CRITERIA in conjunction with clinical presentation suggestive of acute myocardial infarction

- | | |
|---|--|
| <input type="checkbox"/> Male: $\delta \geq 2\text{mm}$ STE V1-3 | <input type="checkbox"/> ST depression V1 - V3 - do posterior leads |
| <input type="checkbox"/> Female: $\delta \geq 1.5\text{mm}$ STE in V1-3 | <input type="checkbox"/> $\geq 0.5\text{mm}$ STE V7 - V9 (posterior leads) |
| <input type="checkbox"/> LBBB known to be new | <input type="checkbox"/> $\geq 1\text{mm}$ STE in two other contiguous leads |

ECG INTERPRETATION: IS THERE A STEMI?

Time ECG performed: _____ Time ECG interpreted by doctor: _____

Senior ED Doctor: _____ Sign: _____ Reg SMO

Anterior STEMI Lateral STEMI New LBBB

Inferior STEMI → perform right sided ECG V3R and V4R ?Rt ventricular MI

Posterior STEMI → perform posterior ECG V7-9 ?Posterior MI

YES / UNSURE → STEMI / REPERFUSION CALL 777 **NO → EXIT BUNDLE**

Reperfusion call time: _____

Arrival time in ED: _____

Onset of chest pain: _____

Continue patient care in ED as clinically indicated

IS THE PATIENT CLINICALLY APPROPRIATE FOR PRIMARY PCI?

Potential exclusion criteria Note that age, PVD, inability to lie flat, CKD and COPD are NOT exclusions

- | | | | |
|---|---|---|---|
| <input type="checkbox"/> Severe dementia | <input type="checkbox"/> Extreme frailty | <input type="checkbox"/> High procedural risk | <input type="checkbox"/> Patient wishes |
| <input type="checkbox"/> Inability to perform ADL's | <input type="checkbox"/> Significant co-morbidities | <input type="checkbox"/> Life expectancy < 3 months | |

Consider differential diagnoses if any present or unsure - DW WDHB cardiologist via operator

- | | |
|--|--|
| <input type="checkbox"/> Aortic dissection | <input type="checkbox"/> Non-Ischaemic vasospasm |
| <input type="checkbox"/> Pulmonary Embolus | <input type="checkbox"/> Catastrophic intra-cerebral event |
| <input type="checkbox"/> Myo/pericarditis | <input type="checkbox"/> Benign Early Repolarisation <input type="checkbox"/> Ventricular aneurysm |

YES SUITABLE FOR PCI **UNSURE** **NO NOT SUITABLE FOR PCI**

IN HOURS
Mon - Fri 0700 - 1600 (except public holidays)

AFTER HOURS
Mon - Fri 1600 - 0700
Weekend & public holidays

0700-0800 and 1600-1630:
Contact WDHB on-call Cardiologist via operator

0800-1600: Contact CVU Coordinator ext 44949 / 021 893 909

ACH CIU Interventionalist 0800 4 STEMI

Inform ACH ED FACEM

Involve ED SMO if not already

Email ECG to WDHB Cardiologist Select exported ECG in Clinical Portal >>click Send Email

DW WDHB Cardiologist via operator Decision regarding PCI should be shared discussion between ED senior doctor and the WDHB Cardiologist

Continue patient care in ED as clinically indicated

Administer anti-platelet Rx as per guide on page 4

Follow pre-transfer checklist on page 3

Complete all nursing tasks on page 3

10 minutes to reperfusion call

30 minutes (Door - in-door-out time)

STEMI BEST CARE BUNDLE PATHWAY

7.7.214 A

- 777 “ STEMI Reperfusion call” if AMI symptoms +
 - Anterior STEMI
 - Lateral STEMI
 - Posterior STEMI
 - Inferior STEMI
 - New LBBB
- Urgent Cardiology discussion
 - LMCA
 - Wellen’s syndrome
 - De Winter T waves
 - Sgarbossa in old LBBB

T waves

1.



a. Tented

i. Block

2.



b. Camel

ii. HyperK

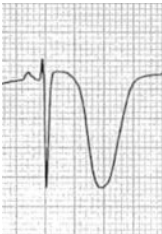
c. Roller coaster

iii. Ischaemia

d. Hyperacute

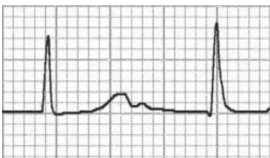
iv. Raised ICP

3.



(Name the T wave pattern then a corresponding cause)

4.

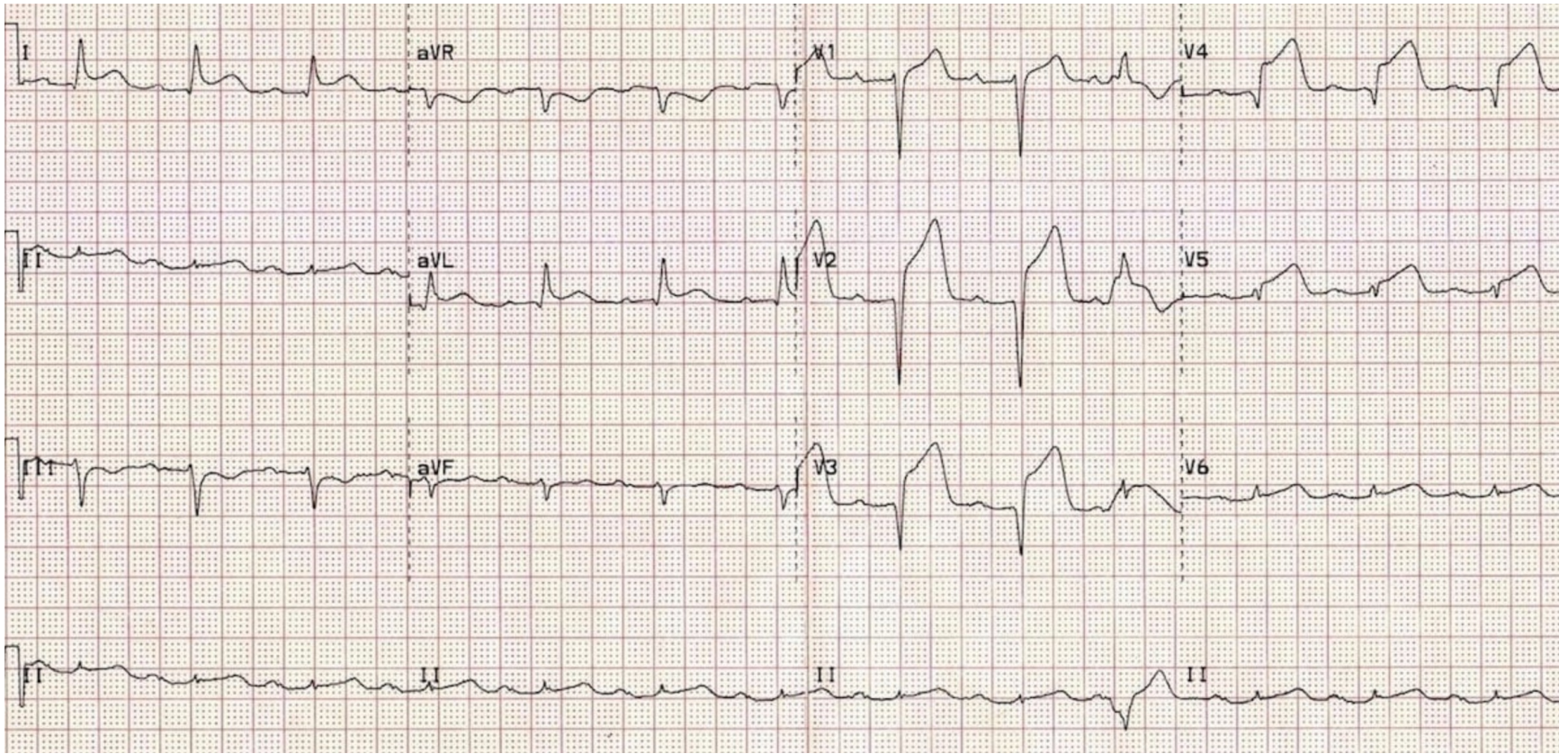


E.g. 1. a. i.

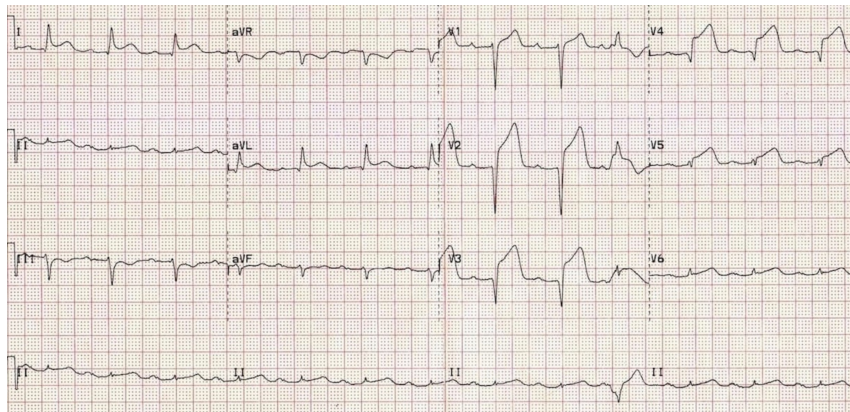
For each ECG

- Pattern Recognition
 - State what type of STEMI
- Systematic review
 - Rate/Rhythm/Axis
 - PQRST
- Would you call 777?
 - Assume this is a new ECG finding and concerning pain
- Resources
 - 30 min online video
 - <https://litfl.com/ecg-interpretation-myocardial-ischaemia-and-infarction/>

ECG 1

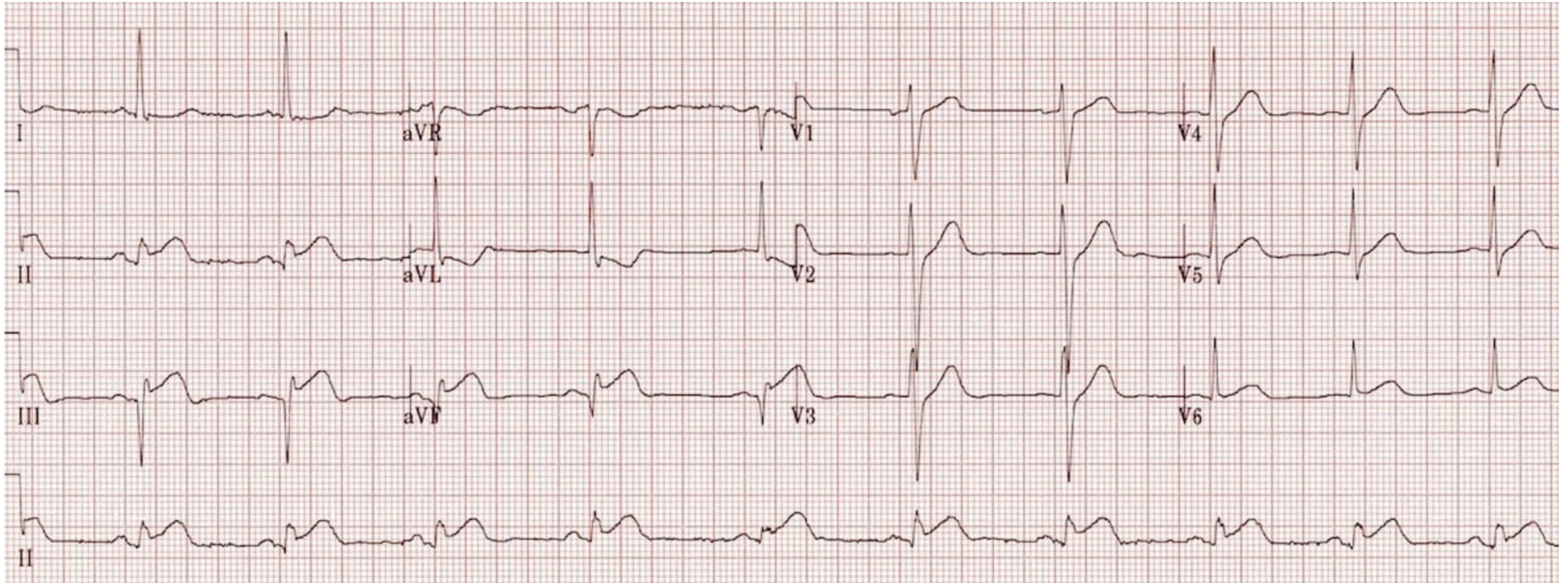


ECG 1

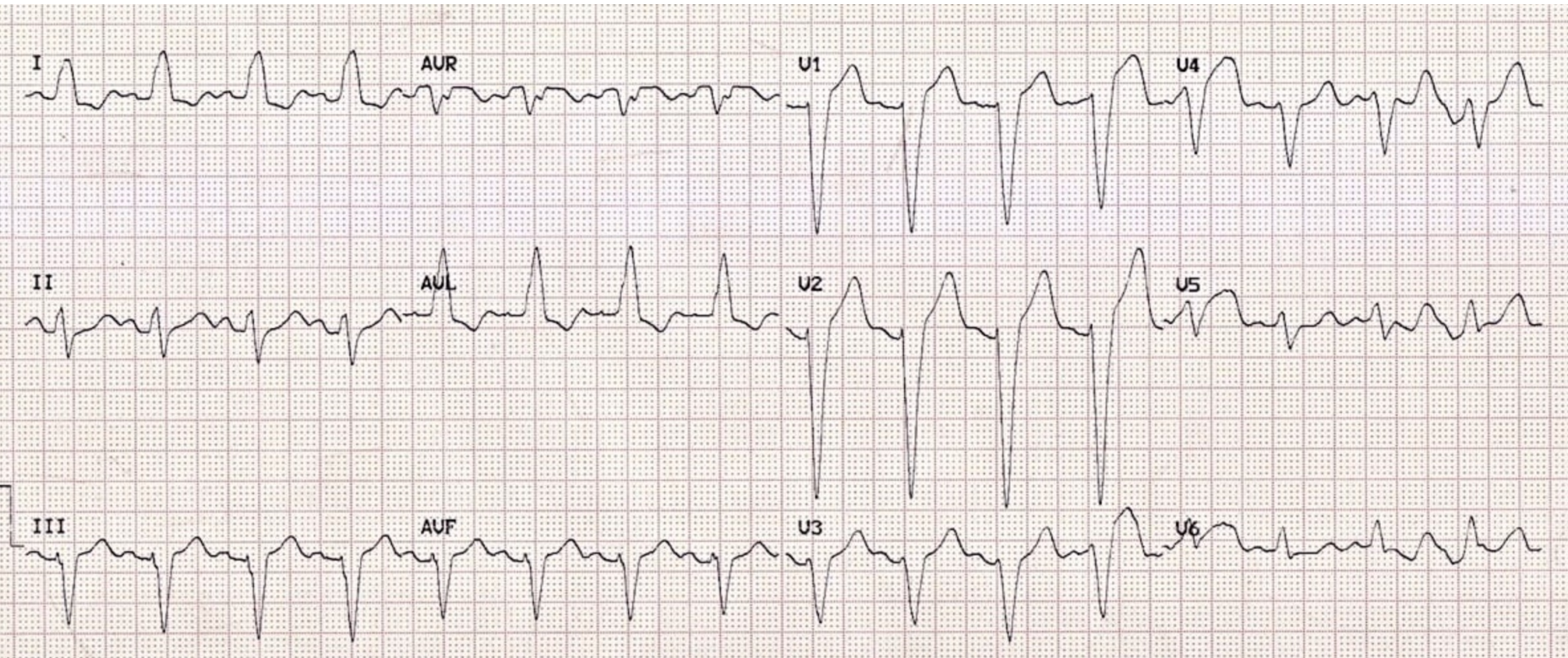


- Pattern Recognition
 - What type of STEMI?
- Systematic review
 - Rate
 - Rhythm
 - Axis
 - P wave
 - PR Interval
 - Q waves
 - QRS
 - ST interval
 - T wave
- Would you call 777?
 - Assume this is a new ECG finding with concerning pain

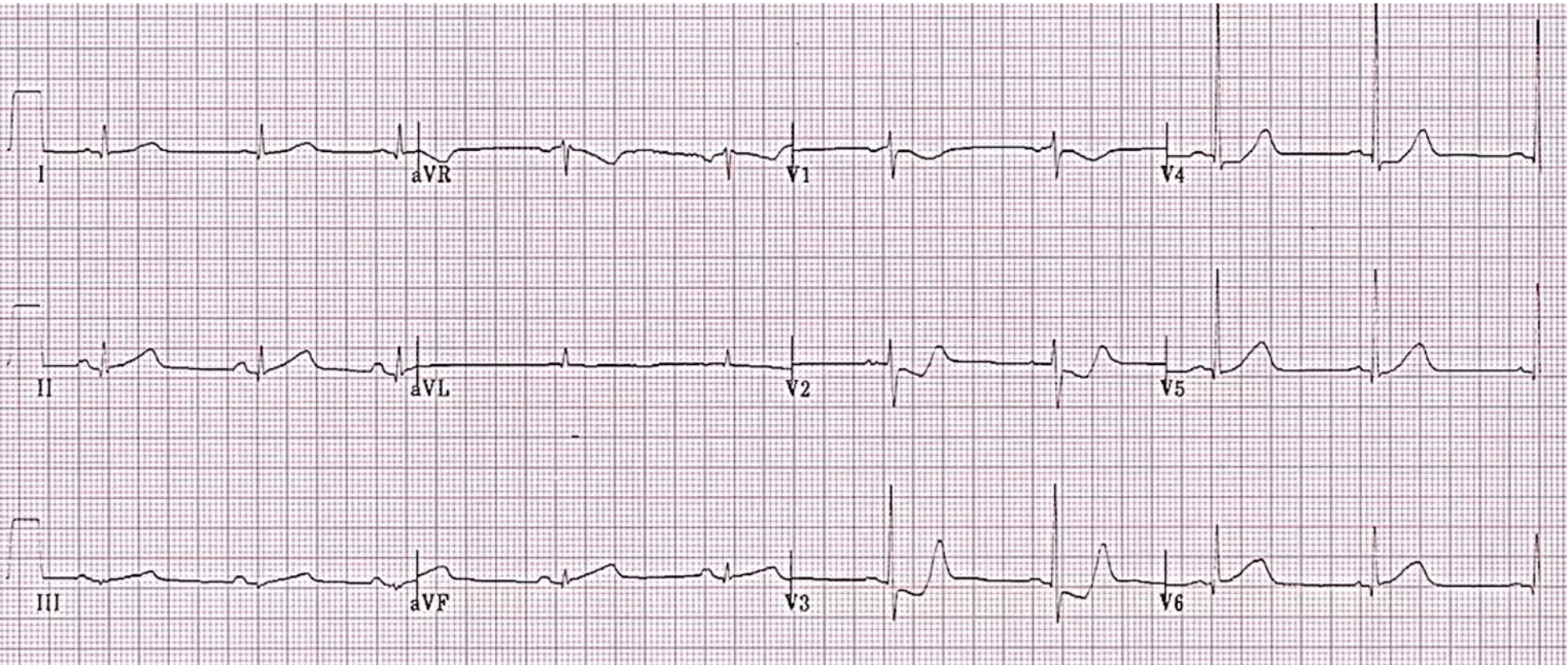
ECG 2



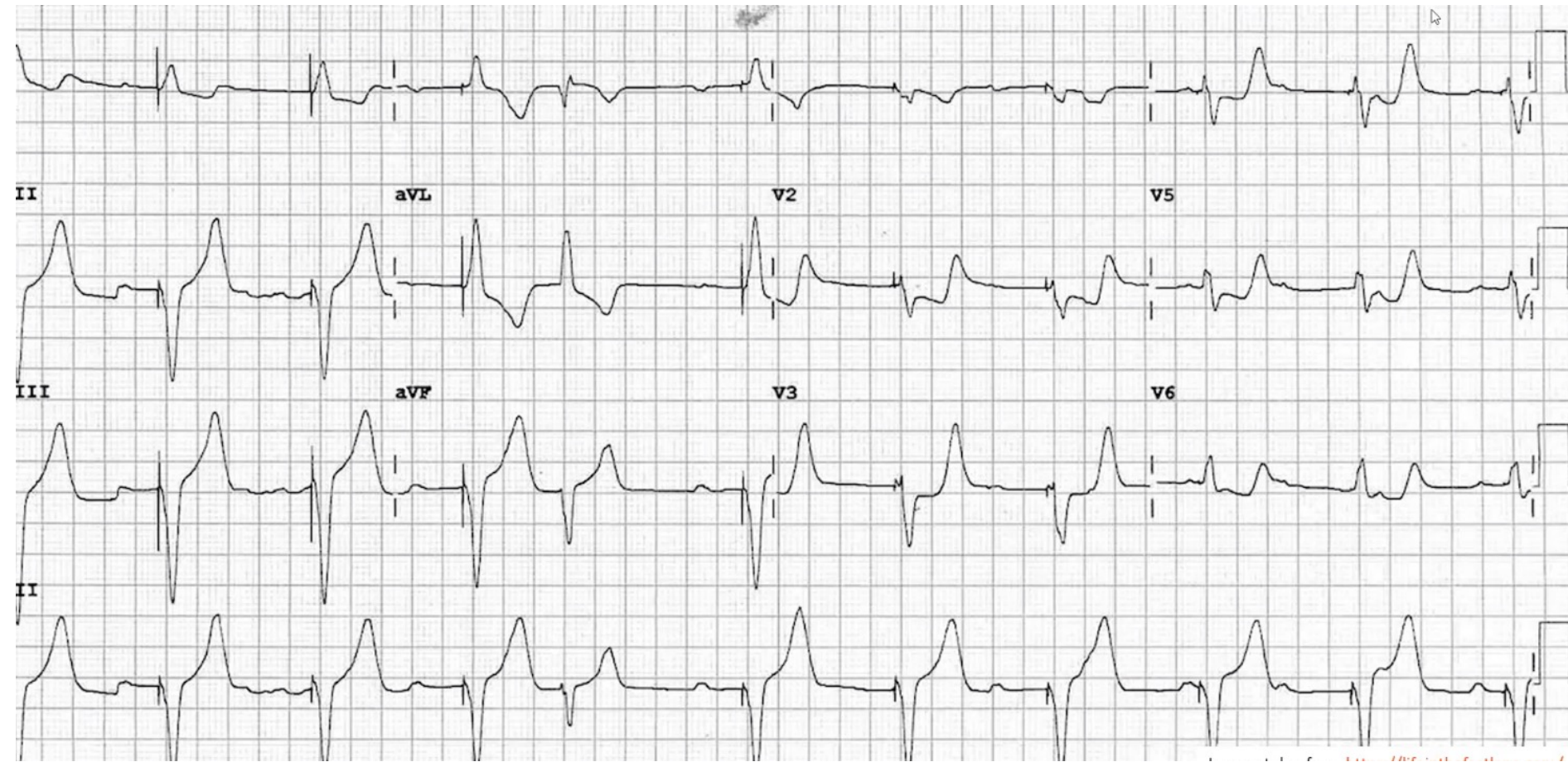
ECG 3



ECG 4



ECG 5



ECG 6

