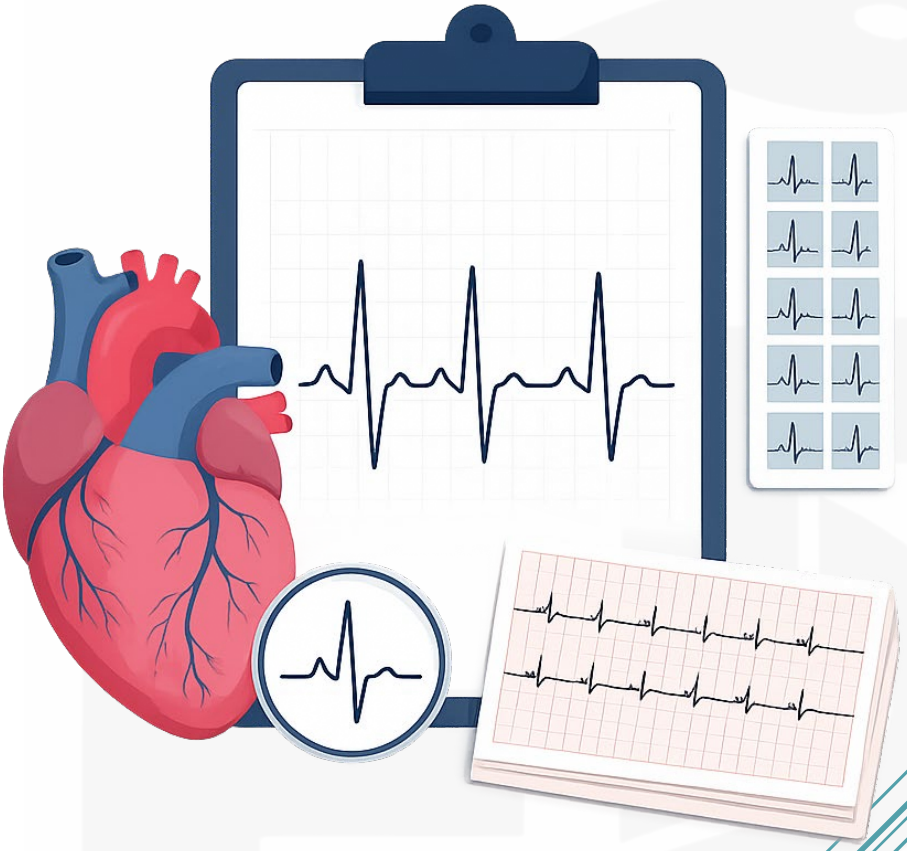
EKG-KOLLEKTION

Sinusrhythmus



Note

Always consider all aspects of the clinical case, not just the ECG interpretation or ECG findings. In particular, take into account the patient's history, physical examination, vital signs, laboratory results, and the appropriate diagnostic and therapeutic management.

At the end, make a clinical decision: How would you proceed? The most important question is often:

Outpatient management or hospital admission?

Abnormal findings in at least two contiguous leads:

Inferior: II, III, aVF

Lateral: I, aVL, V5, V6

Septal: V1, V2

Anterior: V3, V4

Anterolateral: V3–V6, I, aVL

Inhalt

EKG-Checkliste

Bereich	Befund / Auswahl
Patient ID	_____
Date / Time	_____
ECG Calibration	☐ 10 mm/mV ☐ Abnormal
Paper Speed	☐ 25 mm/s ☐ Other: _____
Artifacts	☐ None ☐ Present: _____
Lead Quality	☐ Good ☐ Limited
RR intervals	☐ Regular ☐ Irregular
Heart Rate	_____ bpm Rate Calculation 300 ÷ number of large boxes between two R waves 60 ÷ (0.04 × number of small boxes between two R waves)
Rate Assessment	☐ Bradycardia (< 60 bpm) ☐ Normal heart rate (60–100 bpm) ☐ Tachycardia (> 100 bpm)
P wave before every QRS complex / QRS complex after every P wave	☐ Yes ☐ No
P wave positive in lead II	☐ Yes ☐ No
P wave negative in lead aVR	☐ Yes ☐ No
Rhythm Description	_____

P Waves	☐ Normal ☐ Abnormal	
Atrial Abnormality	Left ☐ No ☐ Yes	Right ☐ No ☐ Yes
	P-wave duration > 120 ms ☐ No ☐ Yes Notched P wave in lead II ☐ No ☐ Yes Biphasic P wave in V1 with a negative terminal portion ☐ No ☐ Yes	Tall, peaked P waves ☐ No ☐ Yes P-wave amplitude ≥ 2.5 mm ☐ No ☐ Yes
PR Interval	_____ ms	
PR Interval Duration	☐ Normal (120–200 ms) ☐ Short (< 120 ms) ☐ Prolonged (> 200 ms)	
Atrioventricular (AV) Block	☐ Yes ☐ No	
QRS Duration QRS Assessment	_____ ms ☐ Normal (< 100 ms) ☐ Borderline (100–120 ms) ☐ Wide (≥ 120 ms)	
QRS Morphology	_____	
Bundle Branch Block Pattern	☐ None ☐ Right Bundle Branch Block (RBBB) ☐ Left Bundle Branch Block (LBBB) ☐ Left Anterior Fascicular Block (LAFB / LAHB) ☐ Left Posterior Fascicular Block (LPFB / LPHB) ☐ Bifascicular Block ☐ Trifascicular Block	
	Right Bundle Branch Block (RBBB) rSR' or rsR' pattern in V1–V2 ☐ No ☐ Yes Broad S waves in leads I, V5, and V6 ☐ No ☐ Yes QRS duration ≥ 120 ms ☐ No ☐ Yes	
	Left Bundle Branch Block (LBBB)	

	Broad, notched R waves in leads I, aVL, V5, and V6 ☐ No ☐ Yes Deep S waves in leads V1–V3 ☐ No ☐ Yes QRS duration ≥ 120 ms ☐ No ☐ Yes
	Left axis deviation (typically −45° to −90°), qR pattern in leads I and aVL, rS pattern in leads II, III, and aVF, with a normal or slightly prolonged QRS duration.
	Left Posterior Fascicular Block (LPFB / LPHB) Right axis deviation (> +90°), rS pattern in leads I and aVL, qR pattern in leads II, III, and aVF, with a usually normal QRS duration.
	Bifascicular Block Right Bundle Branch Block (RBBB) + Left Anterior Fascicular Block (LAFB)
	Trifascicular Block Bifascicular block + atrioventricular (AV) conduction delay (AV conduction abnormality).
R-Progression	☐ Normal ☐ Poor R Progression
Pathological Q Waves	☐ No ☐ Yes Q wave duration ≥ 40 ms Q wave depth ≥ 25% of the R-wave amplitude
Left Ventricular Hypertrophy (LVH)	☐ No ☐ Yes S(V1) + R(V5/V6) ≥ 35 mm Strain pattern in leads I, aVL, V5, and V6 Tall R waves Downsloping ST-segment depression Asymmetrically inverted T waves
Right Ventricular Hypertrophy (RVH)	☐ No ☐ Yes Right axis deviation Dominant R wave in lead V1
Cardiac Electrical Axis	☐ Normal Axis ☐ Intermediate Axis ☐ Vertical Axis

	☐ Left Axis Deviation ☐ Extreme Left Axis Deviation ☐ Right Axis Deviation ☐ Extreme Right Axis Deviation
ST Segment	☐ Isoelectric ☐ Elevation ☐ Depression
Affected Leads	_____
At least two contiguous leads	☐ Yes ☐ No
ST-Segment Morphology	☐ Concave ☐ Convex ☐ Horizontal ☐ Upsloping ☐ Downsloping
Sometimes ST-segment changes are seen in only a single lead or in a single heartbeat. However, the key consideration is whether these changes are present in contiguous leads and persist across multiple cardiac cycles.	
T Waves	☐ Normal ☐ Hyperacute ☐ Peaked ☐ Inverted ☐ Flattened ☐ Biphasic
Affected Leads	_____
QT Interval	_____ ms

Corrected QT Interval (QTc)	_____ ms
QT Assessment	☐ Normal ☐ Prolonged ☐ Shortened
U Waves	☐ Yes ☐ No
Delta Wave	☐ Yes ☐ No
Pacemaker Rhythm	☐ Yes ☐ No
Other Abnormalities	_____
Key ECG Findings	_____
History (Relevant Symptoms)	_____
Physical Examination	_____
Vital Signs	_____
Laboratory Findings	_____
Differential Diagnoses	_____
Further Diagnostic Workup	_____
Acute Management	_____
Further Management	_____

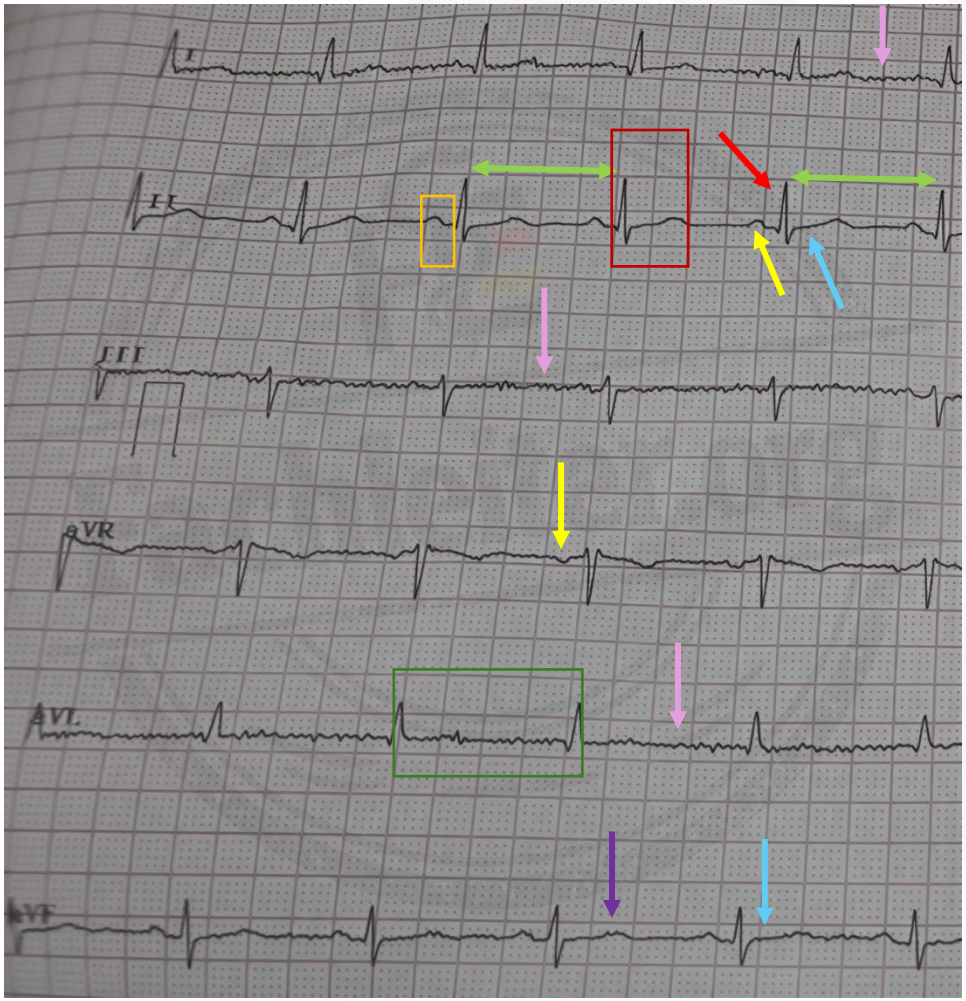
Clinical Decision	☐ Outpatient Management ☐ Hospital Admission ☐ Monitored Unit (Telemetry Unit) ☐ Intensive Care Unit (ICU)
Rationale	_____

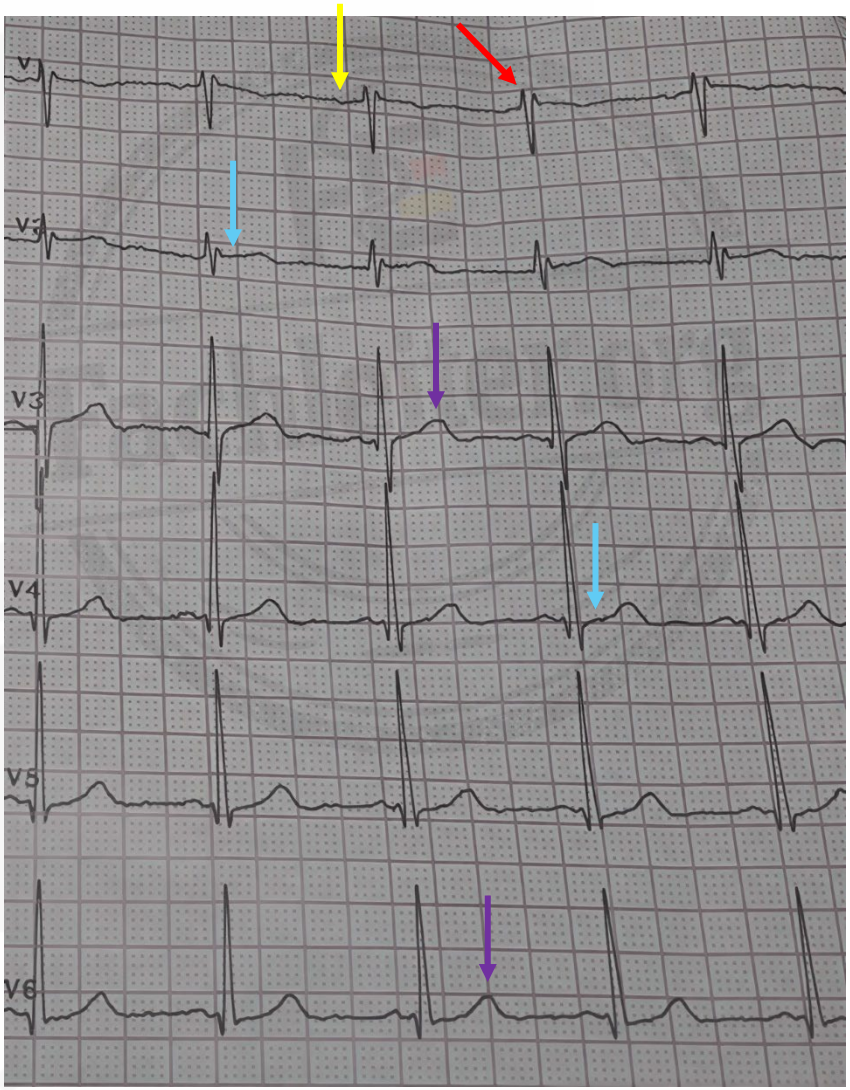
Farben

- Artifacts
- Heart Rate
- Heart Rhythm
- P Waves
- PR Interval
- QRS-complex
- ST- Segment
- T- Waves
- QT- Interval
- R-Wave Transition Zone

Sinusrhythmus 1

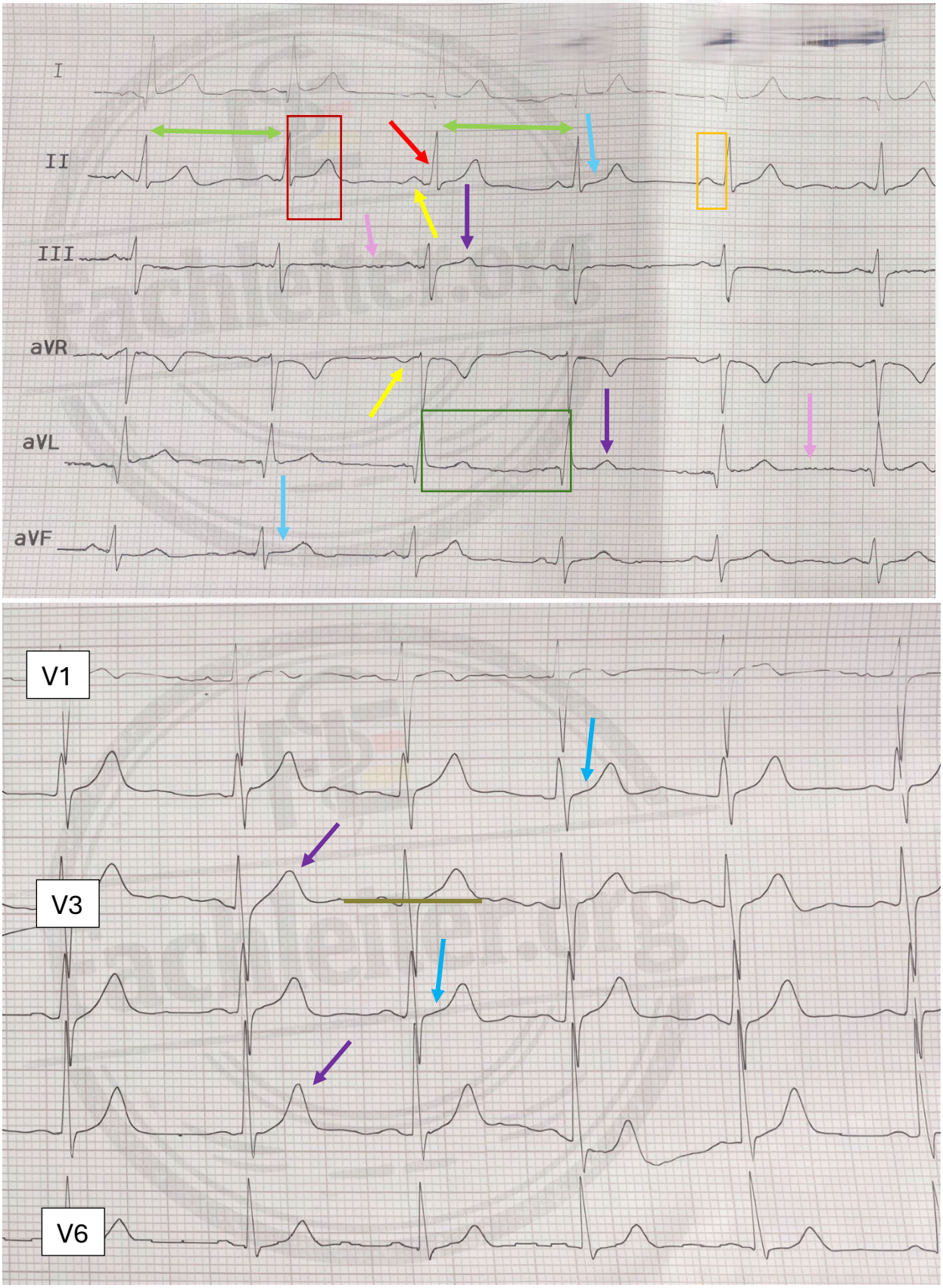
65-year-old female patient with a known history of diabetes mellitus, presenting with dizziness and fatigue for the past several days. Physical examination: Unremarkable.





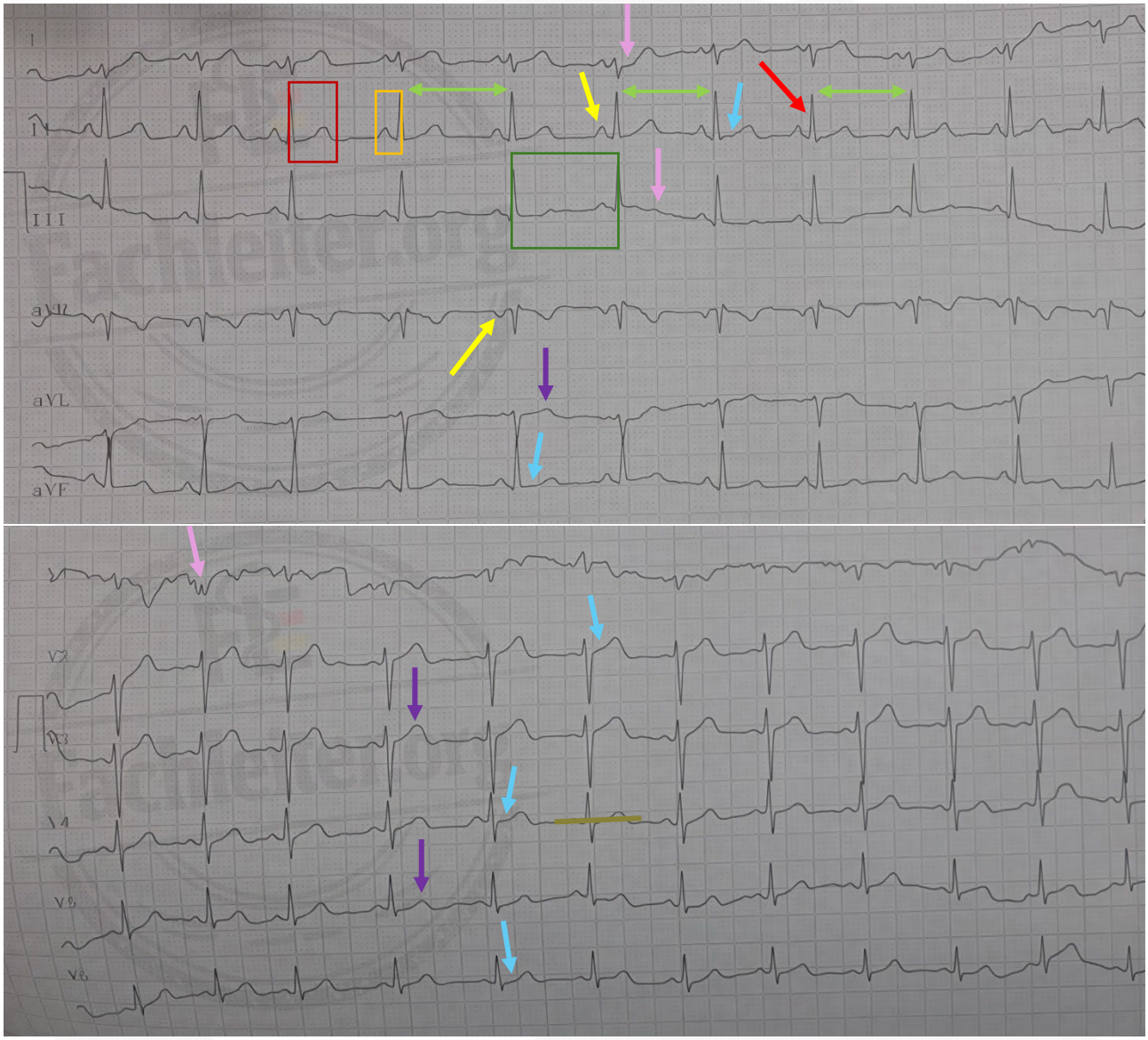
Sinusrhythmus 2

Middle-aged female patient presenting with acute-onset epigastric pain of approximately 30 minutes' duration. Physical examination: Unremarkable.



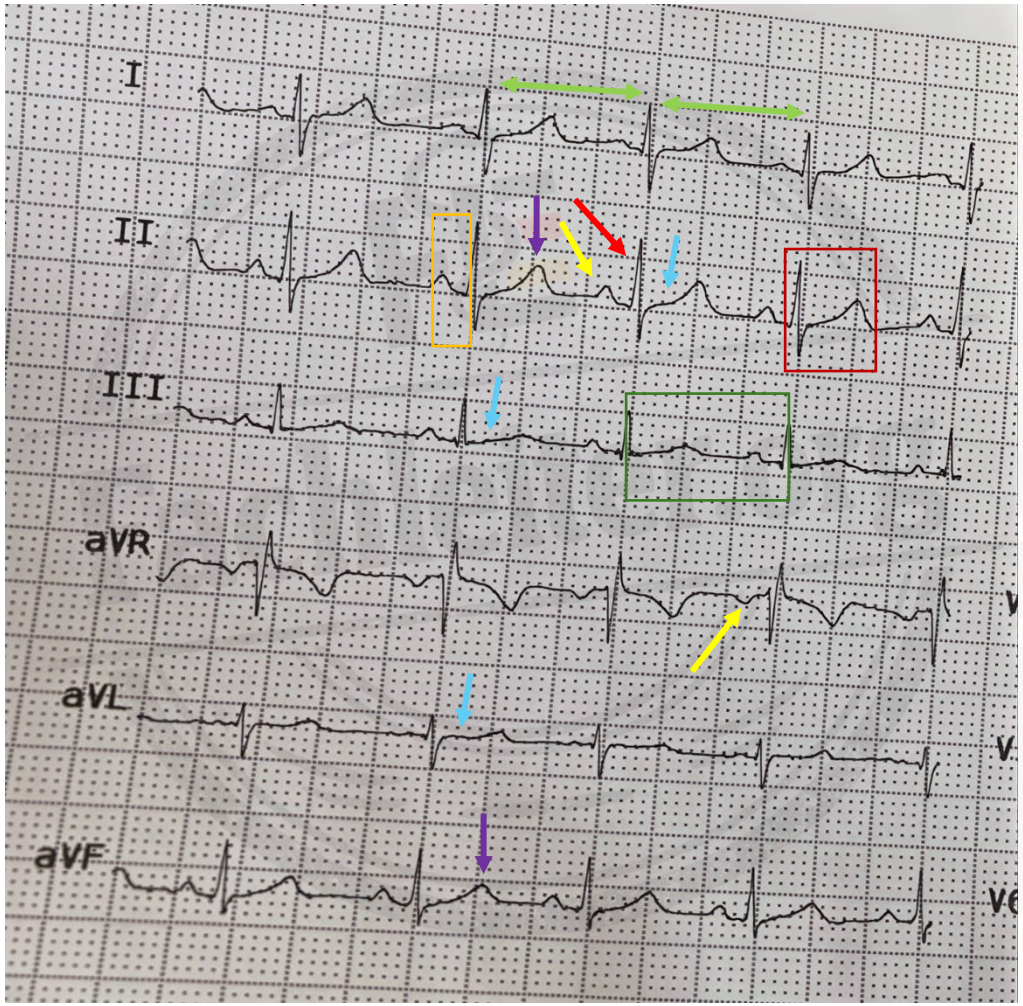
Sinusrhythmus 3

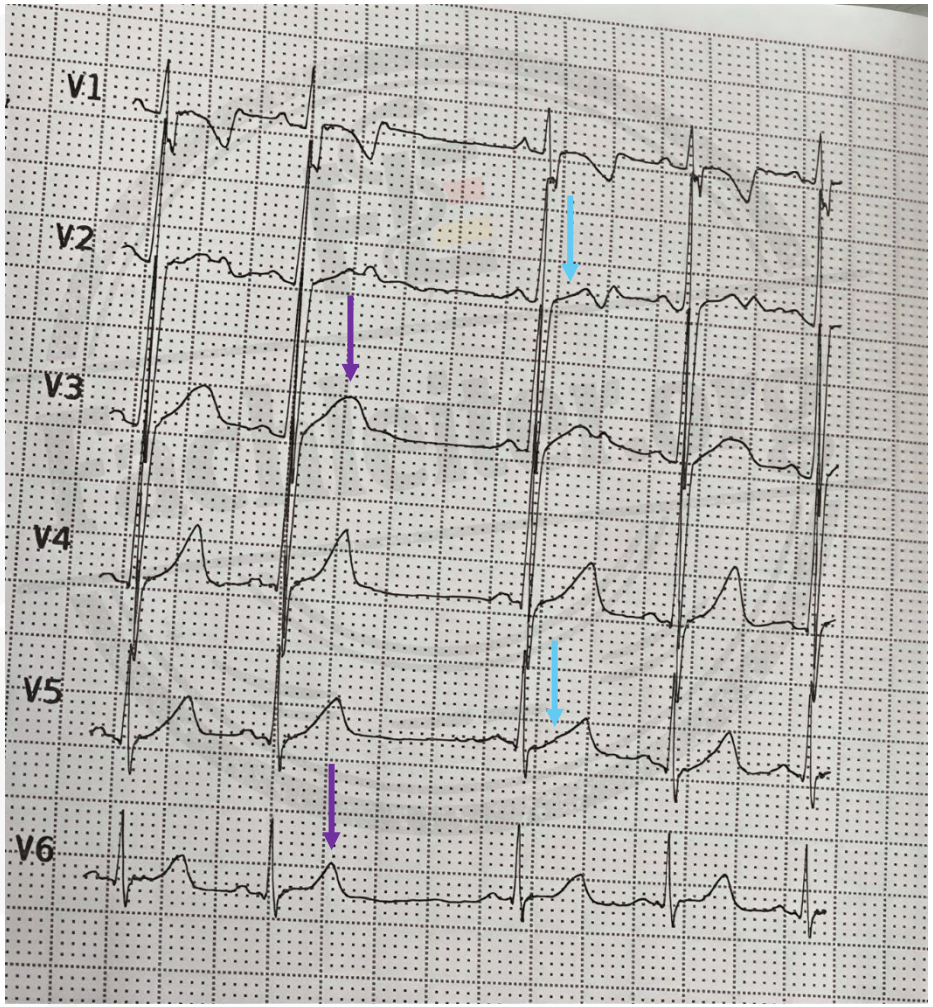
15-year-old girl presenting with a localized burning sensation in the chest.
Physical examination: Unremarkable.



Sinusrhythmus 4

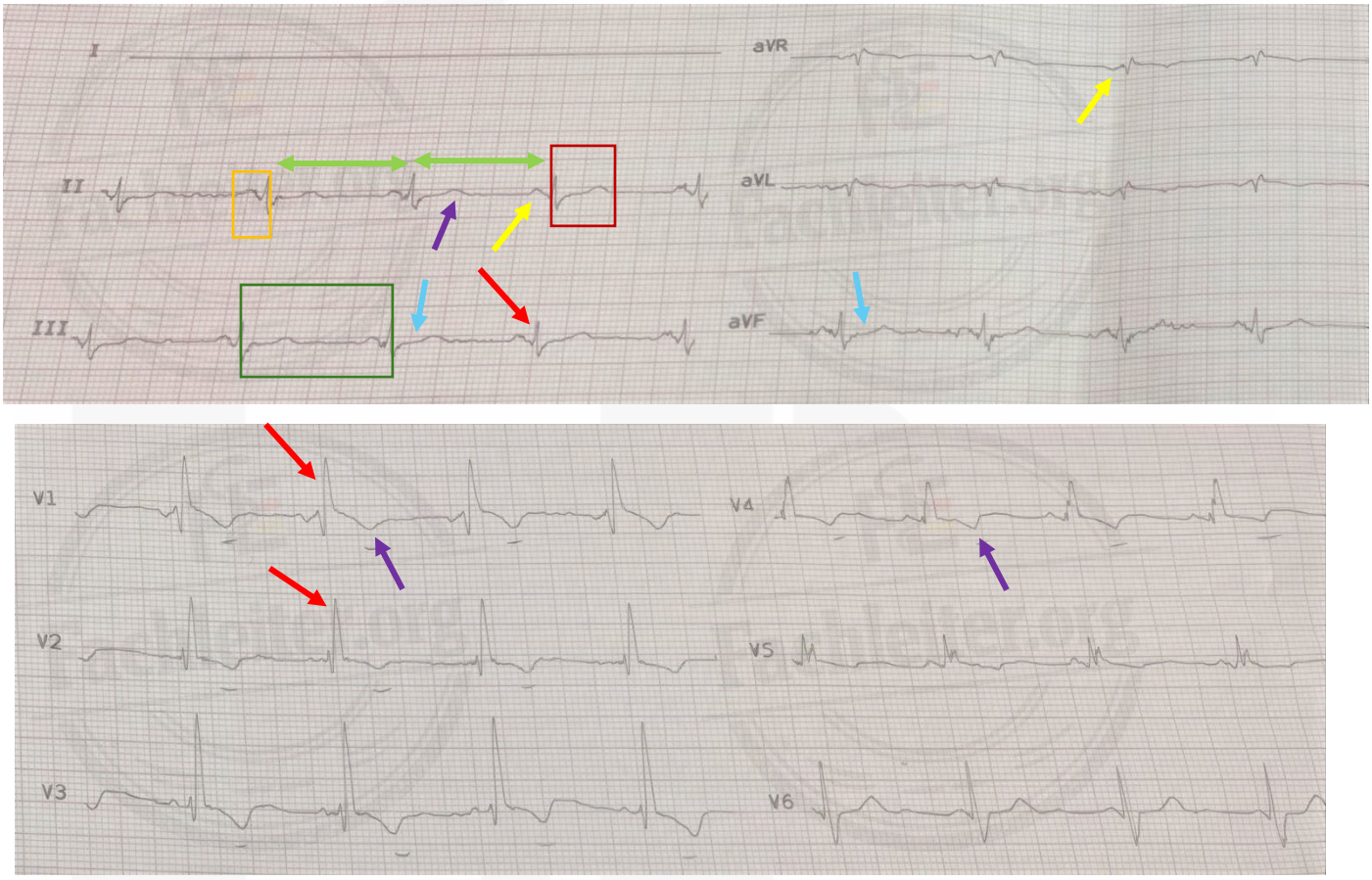
6-year-old boy presenting with shortness of breath and chest pain.





Sinusrhythmus 5

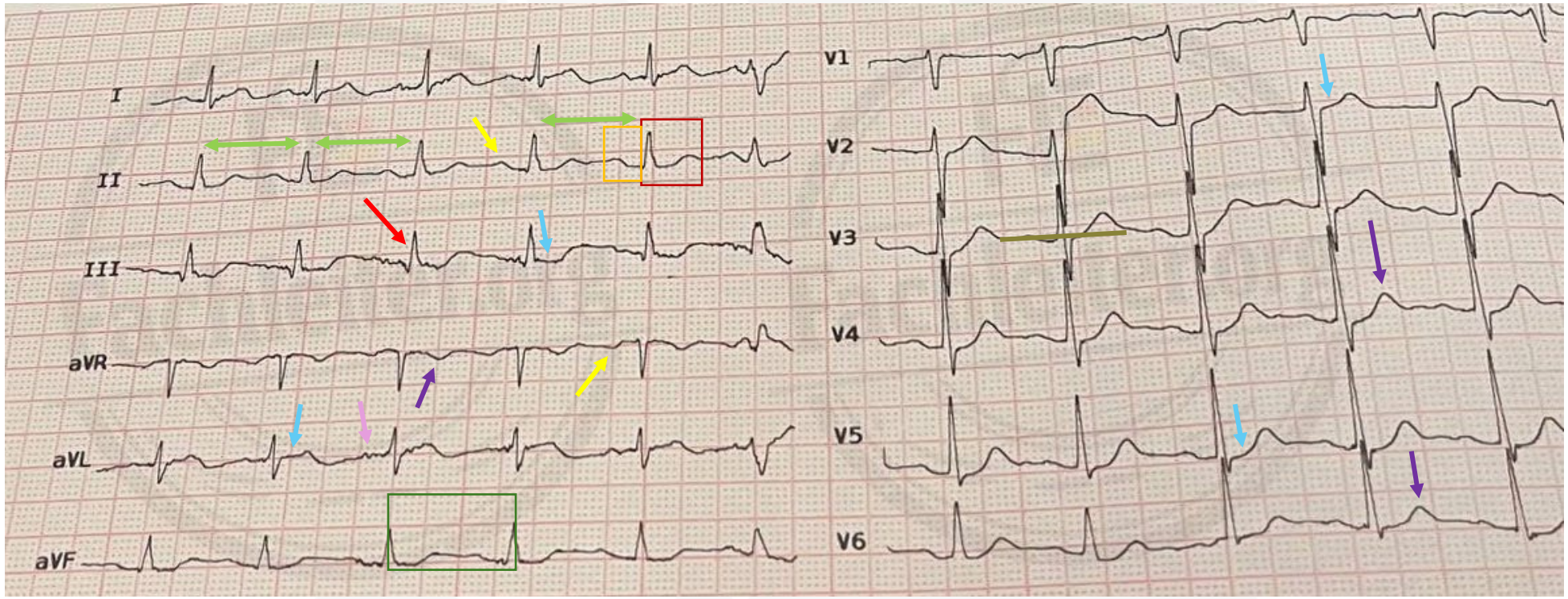
63-year-old male patient with no significant past medical history, presenting with three days of vertigo following an upper respiratory tract infection. He denies chest pain. The clinical presentation is consistent with peripheral vestibular vertigo.



Hinweis: Vertauschung der Elektroden an beiden Armen und beiden Beinen (Fehlplatzierung der Extremitätenelektroden).

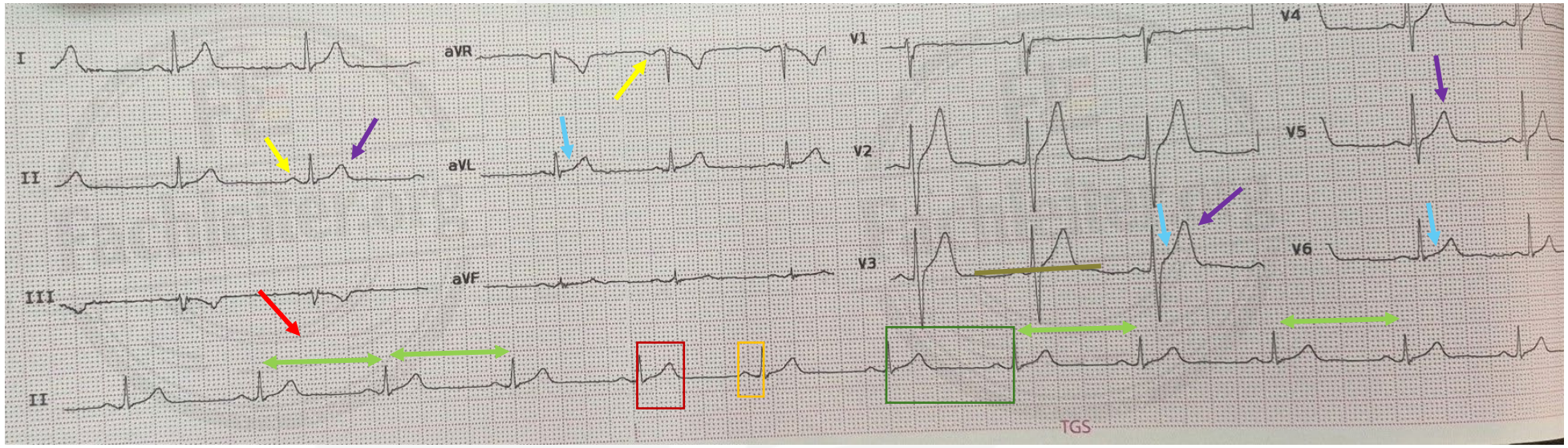
Sinusrhythmus 6

70-year-old male patient with a known history of arterial hypertension, presenting with dizziness and nausea since today.
Vital signs: Blood pressure 160/90 mmHg, SpO_2 95%.



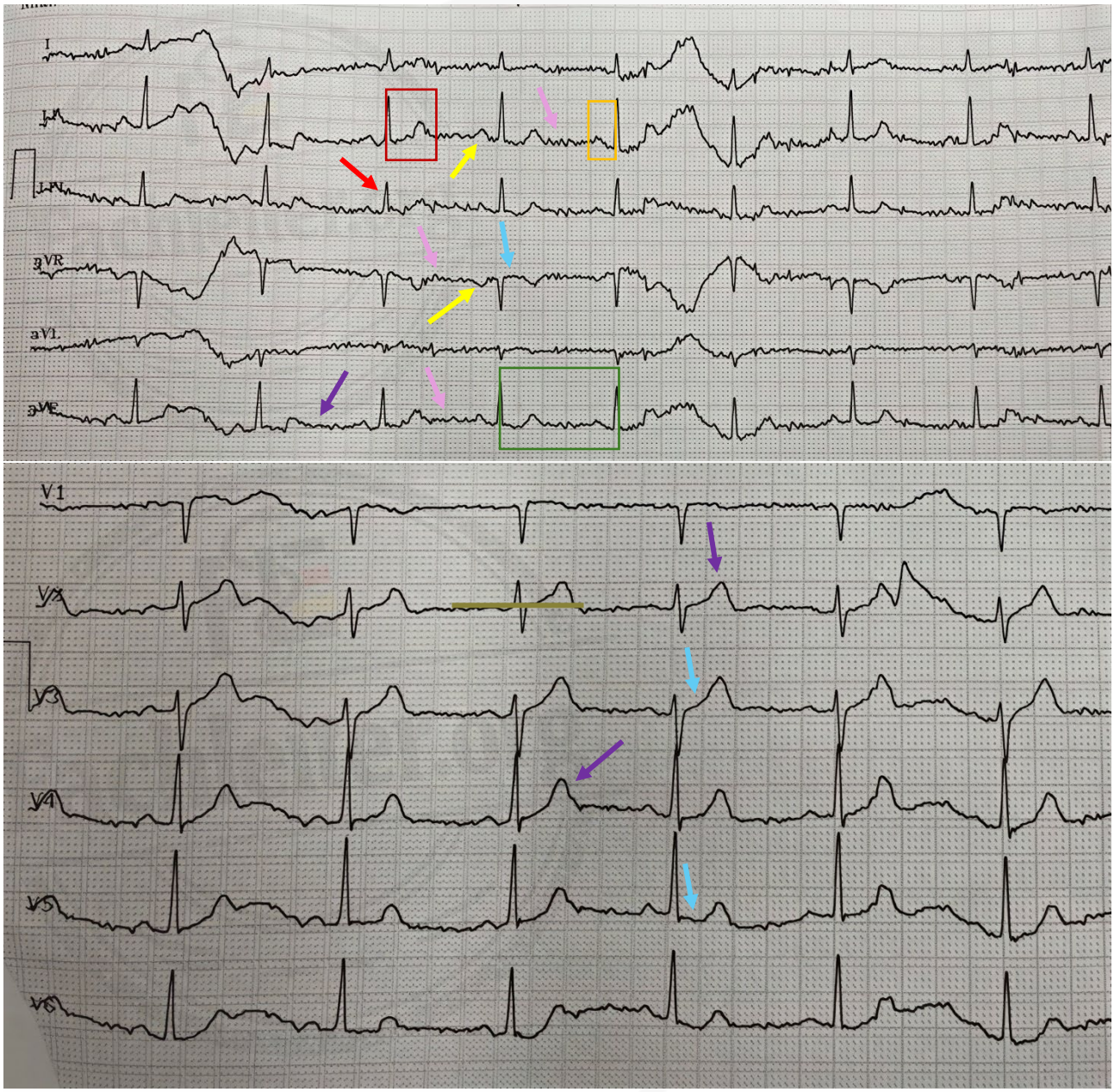
Sinusrhythmus 7

45-year-old male patient, smoker, presenting with exertional retrosternal burning chest pain. No associated symptoms.



Sinusrhythmus 8

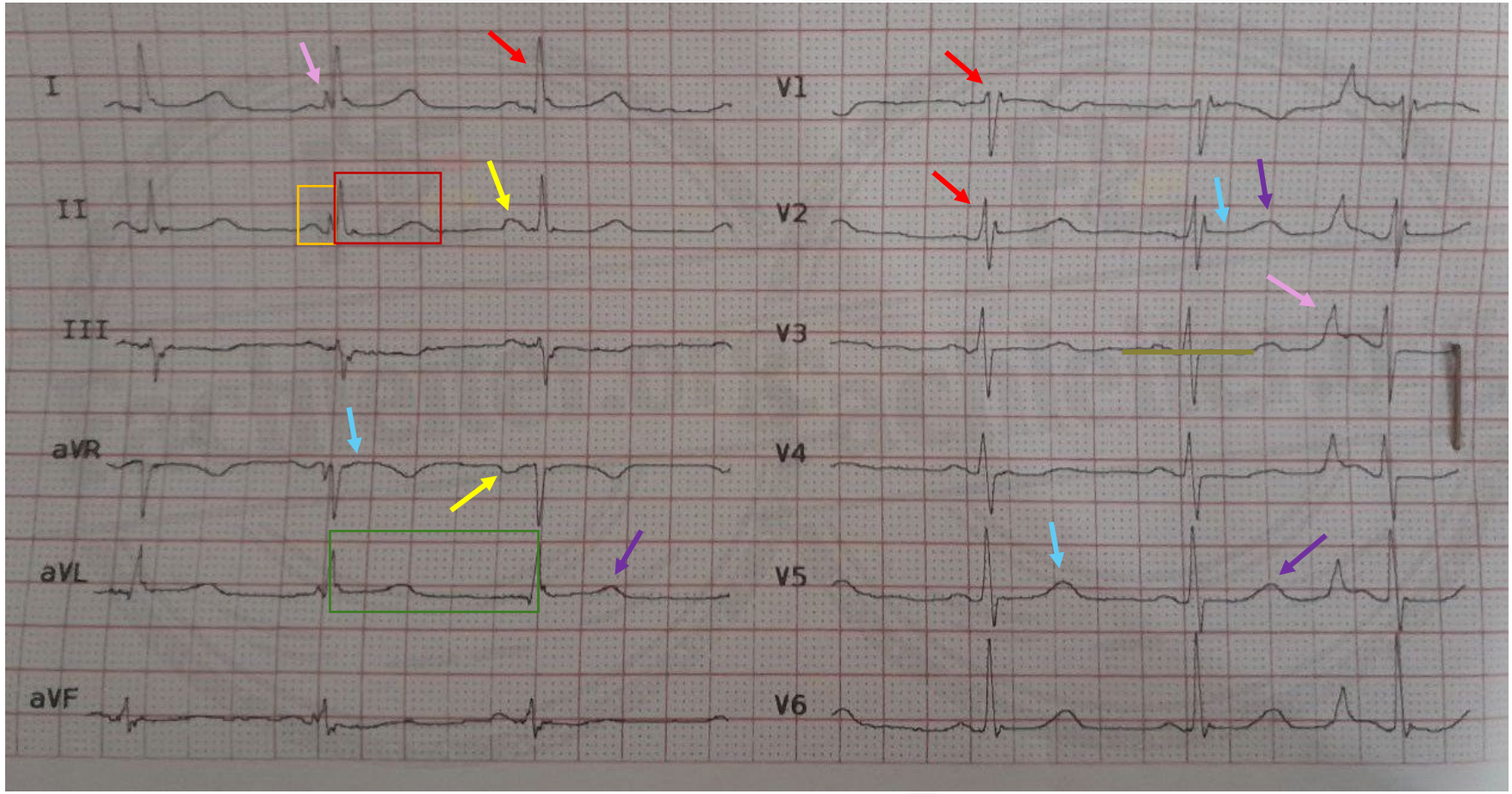
72-year-old female patient with no known past medical history, presenting with nausea, vomiting, and abdominal pain.



Note: Misplacement of Leads V2 and V3

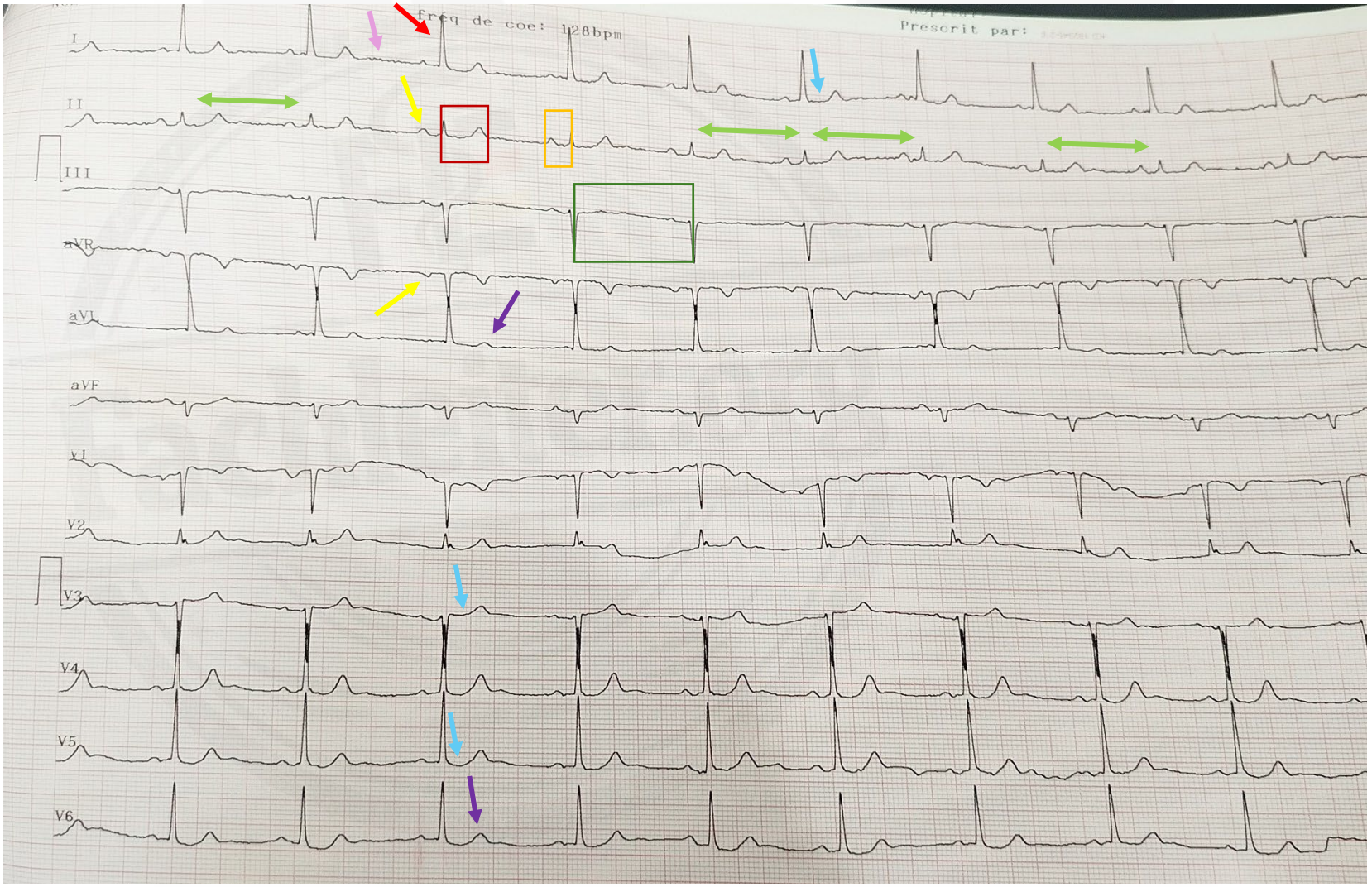
Sinusrhythmus 9

47-year-old female patient presenting with sudden-onset burning epigastric pain, nausea, and profuse sweating for approximately one hour. She denies fever, vomiting, diarrhea, and shortness of breath. She has no known past medical history and takes no regular medications.



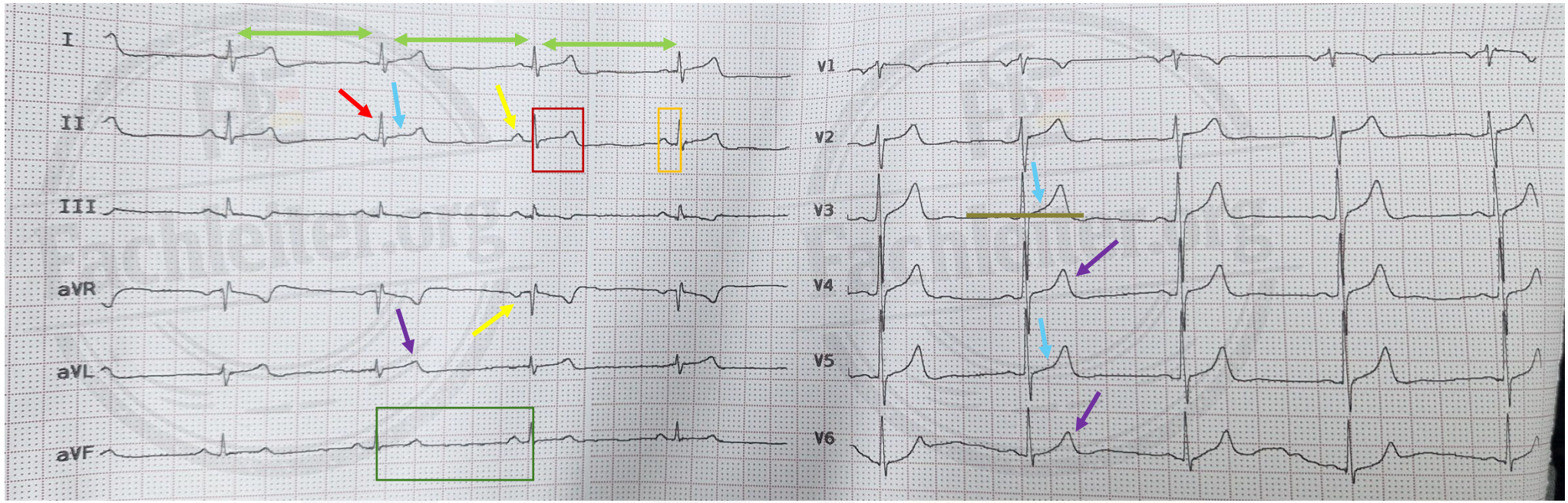
Sinusrhythmus 10

Elderly female patient presenting with weakness and fatigue for the past three weeks. She has no cardiac symptoms.
Past medical history: Arterial hypertension and type 2 diabetes mellitus.



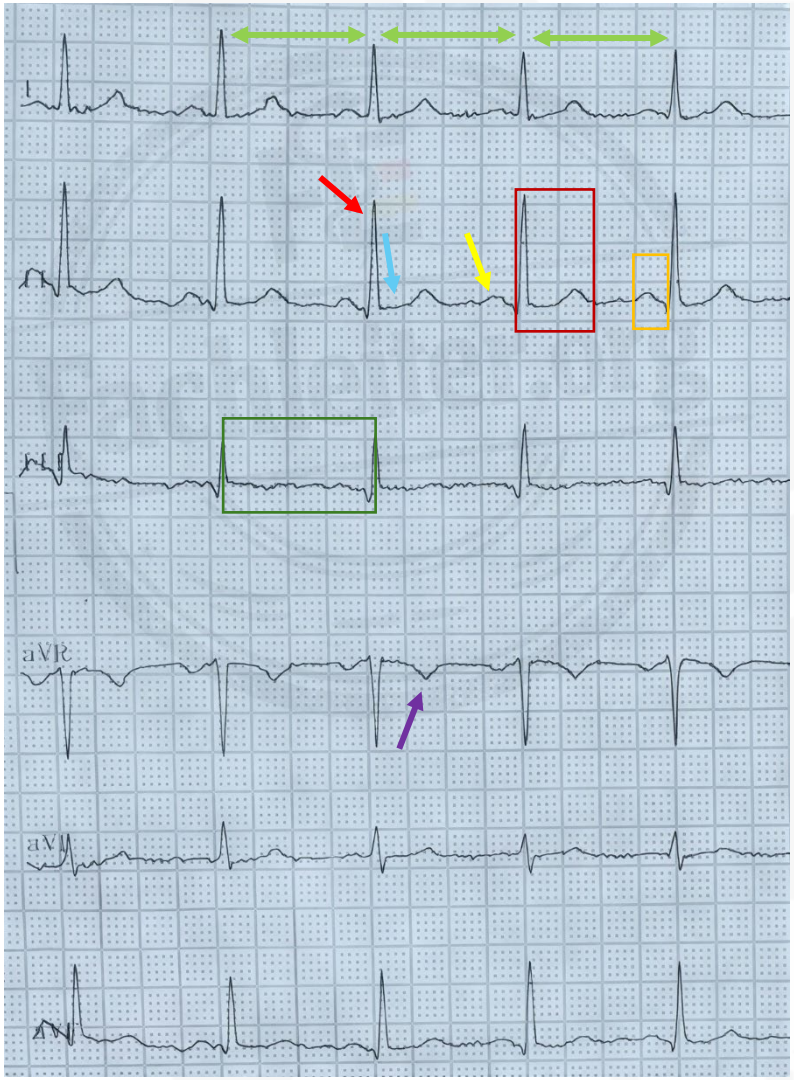
Sinusrhythmus 11

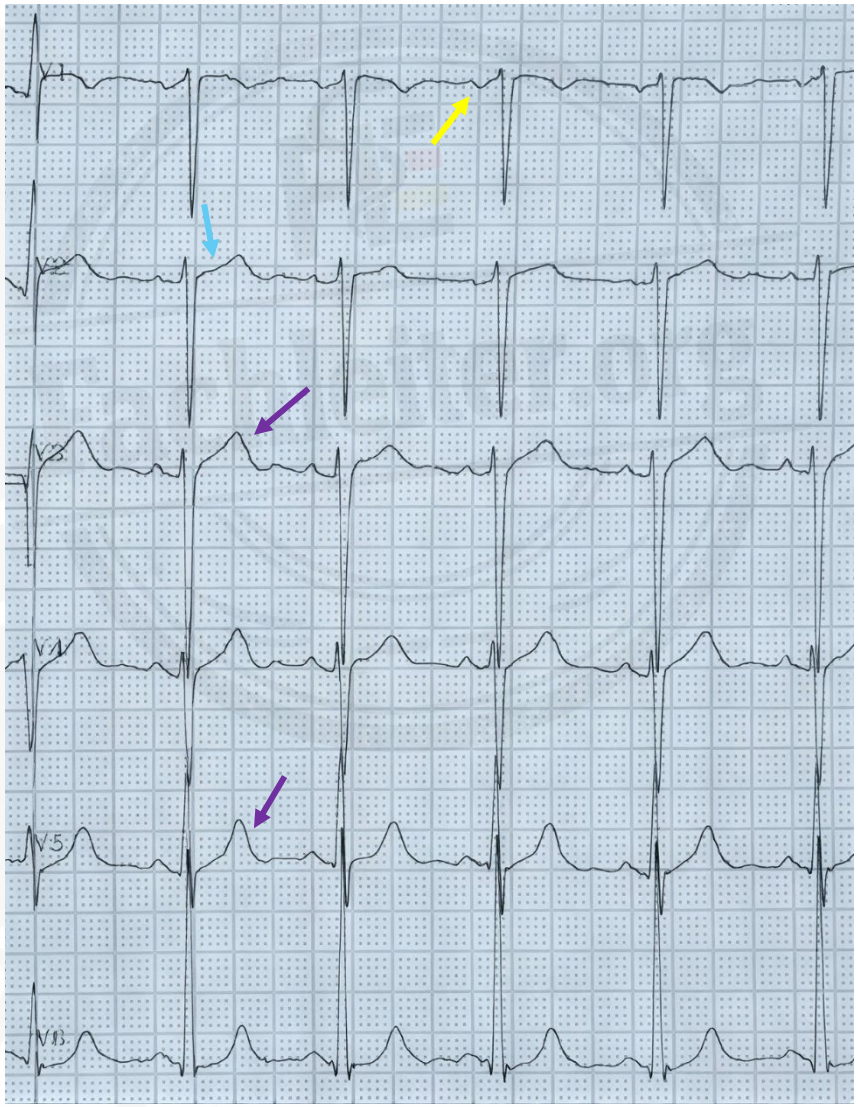
45-year-old male patient presenting with burning epigastric pain that has been present for several hours.



Sinusrhythmus 12

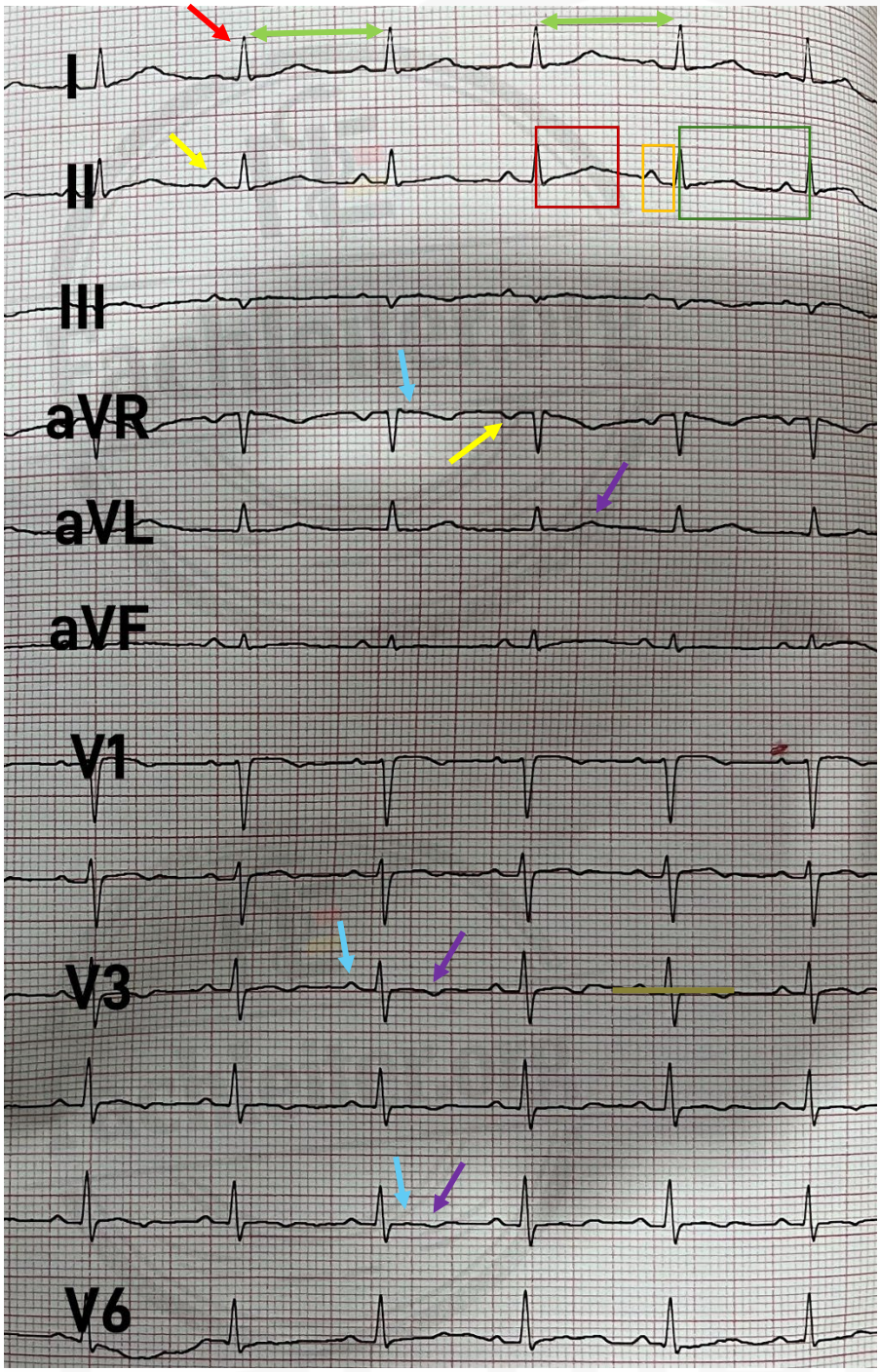
35-year-old male patient presenting with moderate, dull headache and a blood pressure of 180/100 mmHg. He denies any focal neurological deficits.





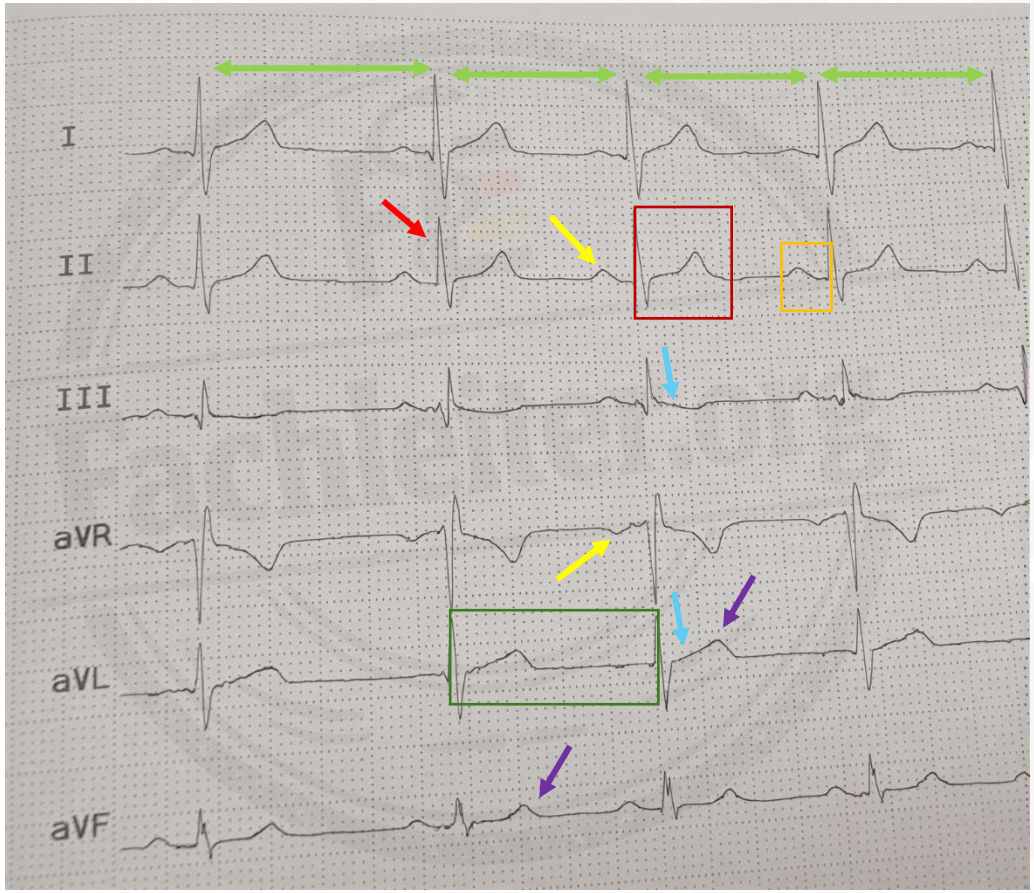
Sinusrhythmus 13

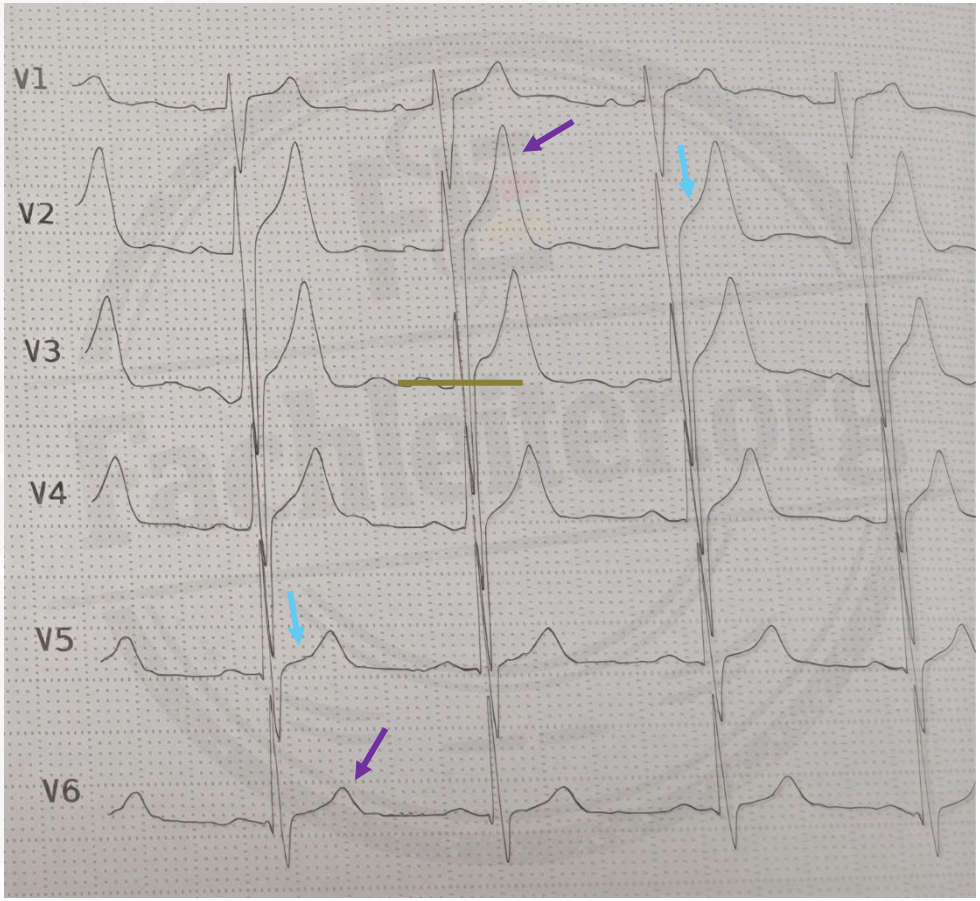
54-year-old male patient presenting with retrosternal chest pain and diaphoresis. Past medical history: Diabetes mellitus and arterial hypertension. Vital signs: Blood pressure 130/80 mmHg..



Sinusrhythmus 14

30-year-old male patient presenting with atypical chest pain of approximately three hours' duration, accompanied by diaphoresis.





Sinusrhythmus 15

25-year-old male patient presenting with atypical chest pain and diaphoresis.