STEMI Mimics

REFERENCE

▪ RAISED ICP · ABERRANT CONDUCTION · INFLAMMATION · ELECTROLYTES

- Raised ICP / SAH-hemorrhagic stroke: widespread, deep T-wave inversions more common than ST changes
- LBBB (aberrant conduction): QRS over 120 ms, dominant S in V1, broad monophasic R laterally, prolonged R peak V5–V6
- Pericarditis: widespread concave ST elevation with PR depression; reciprocal ST depression and PR elevation in aVR and V1
- Hyperkalemia: peaked T over 5.5; P flattening and PR lengthening over 6.5; wide QRS over 7.0; sine wave, asystole/VF/PEA over 9.0 mEq/L

▪ SPONTANEOUS · DEVICE · SODIUM · THORACIC

- SCAD: artery tear, mostly women (80%), pregnancy/postpartum; a major cause of MI in young, healthy women
- Ventricular paced rhythm: discordant ST/T opposite the main QRS vector, as in LBBB
- Brugada (sodium channelopathy): only type 1 is diagnostic; triggered by fever, ischemia, drugs, electrolytes
- Thoracic aortic dissection: severe, sudden, sharp or tearing pain, maximal at onset, radiating down the back

▪ SPASM · EMBOLISM · GRIEF · MYOCARDIAL

- Prinzmetal/variant angina: localized ST elevation with reciprocal depression during pain; transient, reverses with vasodilators, no necrosis
- Pulmonary embolism: sinus tachycardia, S1Q3T3 (20%), RBBB (18%), right axis deviation (16%), dominant R in V1
- Takotsubo (grief): new ECG changes, moderate troponin rise, transient LV dysfunction beyond one vascular territory, no culprit lesion
- MI leading to ventricular aneurysm: persistent STE over 2 weeks, well-formed Q/QS waves, T flattening or inversion

▪ ENLARGED · NORMAL FOR THEM · TEMPERATURE

- LVH (enlarged ventricle): increased R amplitude in I, aVL, V4–V6; increased S depth in III, aVR, V1–V3
- Early repolarization: widespread concave ST elevation, prominent T waves, modest STE, no reciprocal depression, stable changes
- Hypothermia: bradyarrhythmias, Osborne (J) waves mimicking ST elevation, prolonged PR/QRS/QT, shivering artifact, ectopics

Take Home Message:

Not every ST elevation is a STEMI: run the RAISED STEM NET checklist before you commit to a single-vessel story.