Posterior 15-Lead EKG

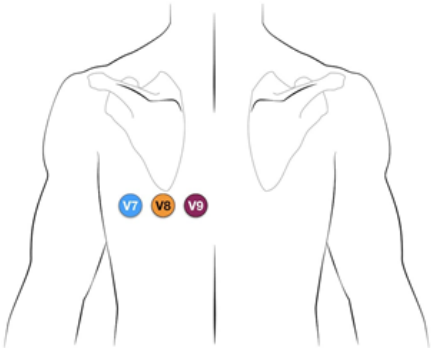
Paramedic

PROCEDURE

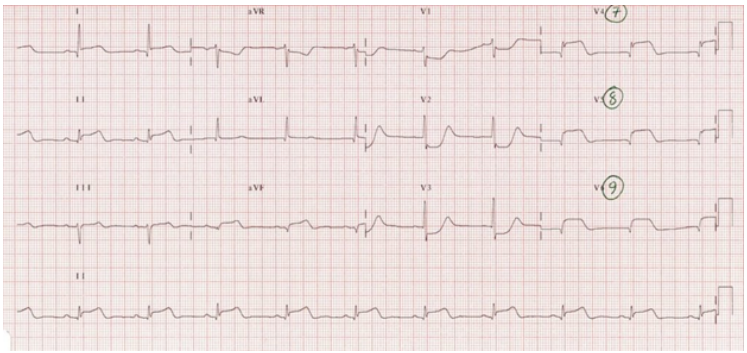
- ❑ Attach monitor to patient with limb leads placed on the limbs – avoid the trunk for diagnostic EKG
- ❑ Input patient information into the monitor (***always*** enter case#, patient initials, age, gender)
- ❑ Enter '**POSTERIOR**' or before or after case#
- ❑ Apply the precordial leads to the standard anatomical location and obtain 12 Lead ECG
- ❑ If indications for Posterior MI are evident, proceed with Posterior ECG acquisition
- ❑ Place three additional ECG electrodes as shown below. *Tip*: start at V9 (the last electrode) and work forward
  - V9 left spinal border, same horizontal line as V4-6
  - V8 mid-scapular line, same horizontal line as V4-6
  - V7 posterior axillary line, same horizontal line as V4-6
- ❑ Place the ECG cables as follows:
  - Lead cable V6 connects to electrode V9
  - Lead cable V5 connects to electrode V8
  - Lead cable V4 connects to electrode V7
  - Lead cables V1-3 are left in place from the original 12 lead ECG
  - Limb leads are left in place from the original 12 lead ECG
- ❑ Instruct the patient to hold still for at least ten seconds and to breathe normally
- ❑ Acquire ECG and interpret the rhythm, identifying any ST changes and mimics
- ❑ Transmit EKG to EMSCOM/receiving facility. **Advise EMSCOM that this is a posterior 15 lead ECG**.
- ❑ Repeat the procedure as necessary to identify any possible trends

Always label ECG *PRIOR* to obtaining 12-lead to assure info appears on acquired tracing

REFERENCE GRAPHICS



Move V4-V6 leads to the back



Mark the 12 lead EKG to reflect the posterior view

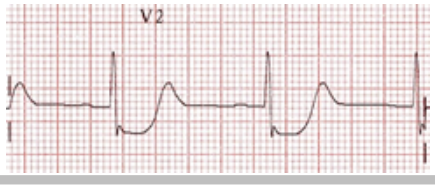
KEY POINTS

Clinical Significance of Posterior MI

- Posterior infarction accompanies 15-20% of STEMIs, usually occurring in the context of an inferior or lateral infarction
- Isolated posterior MI is less common (3-11% of infarcts). Posterior extension of an inferior or lateral infarction implies a much larger area or myocardial damage, with an increased risk of left ventricular dysfunction and death.
- Isolated posterior infarction is an indication for emergent coronary reperfusion. However, the lack of obvious ST elevation in this condition means that the diagnosis is often missed.
- Be vigilant for evidence of posterior MI in any patient with an inferior or lateral STEMI

Indications

- Posterior MI is suggested by the following changes in V1-V3:
  - Horizontal ST depression
  - Tall, broad R waves (>30ms)
  - Upright T waves
  - Dominant R wave (R/S ratio >1) in V2
  - Example: Typical appearance of posterior infarction in V2



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