ECG #18

A 38-year-old woman presents with atypical-sounding low-risk chest pain. Describe and interpret her initial 12-lead electrocardiogram:

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INTERPRETATION:

- 84 bpm
- Sinus rhythm
- PR interval 150 ms
- Normal QRS axis (-7°)
- QRS duration 82 ms
- QTc 441 ms
- Early repolarisation phenomenon:
  - Widespread concave ST elevation, most prominent in the precordial leads (V2-5)
  - Notching/slurring at the J-point
  - Prominent, slightly asymmetrical T-waves that are concordant with the QRS complexes
  - No reciprocal ST elevation to suggest a STEMI
- Global negativity in lead III
- Greater P-wave amplitude in lead I compared with lead II (usually the other way round)

DIAGNOSIS:

Left upper and lower limb electrode reversal.

This has the following effects on the ECG:

- Lead III becomes inverted
- Leads I and II switch places
- Leads aVL and aVF switch places
- Lead aVR remains unchanged

Repeat ECG after 30 minutes:

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The above ECG is from the same patient with correct electrode placement.

See this post on electrode reversal from LITFL for more information.