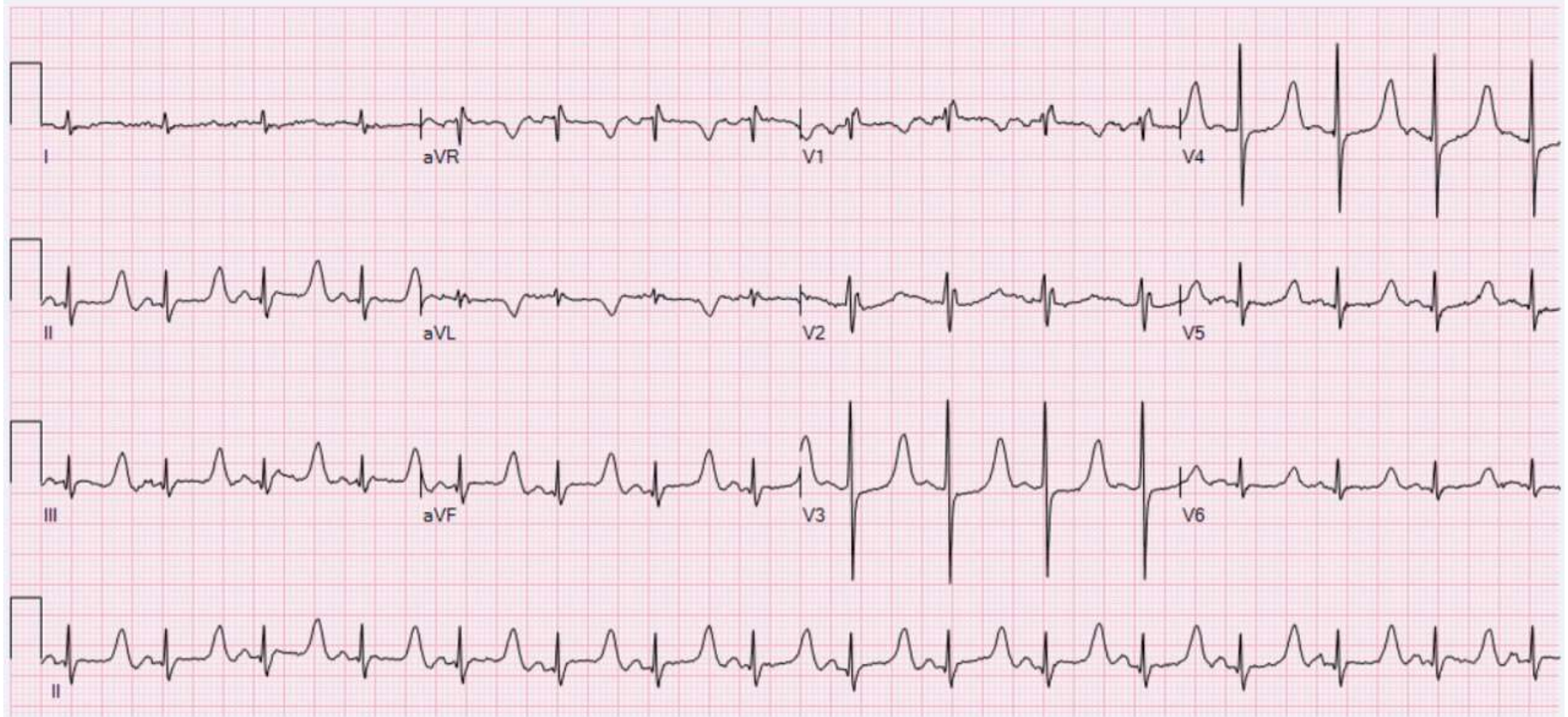
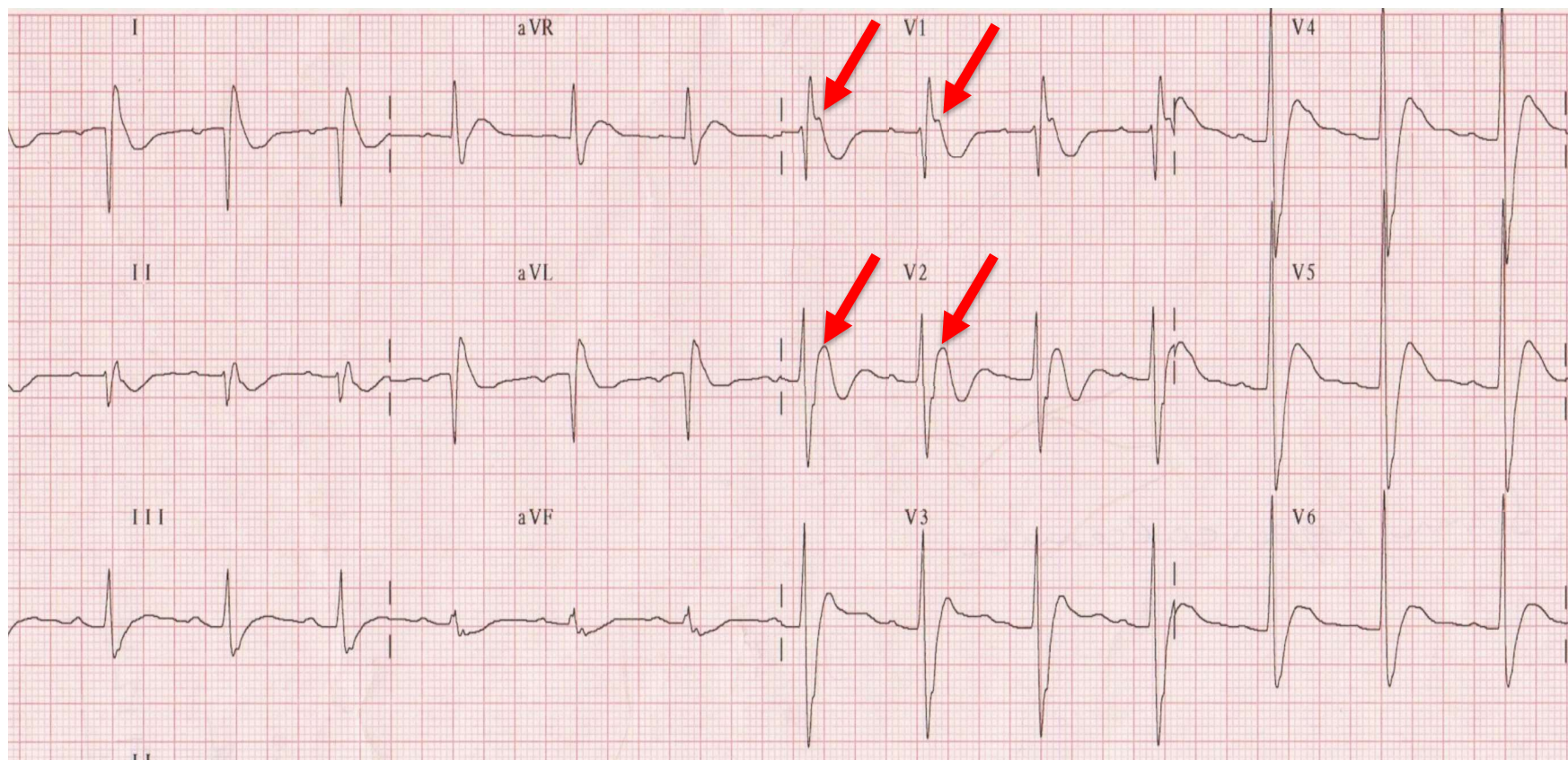


- ST and/or T wave abnormalities suggesting electrolyte disturbances

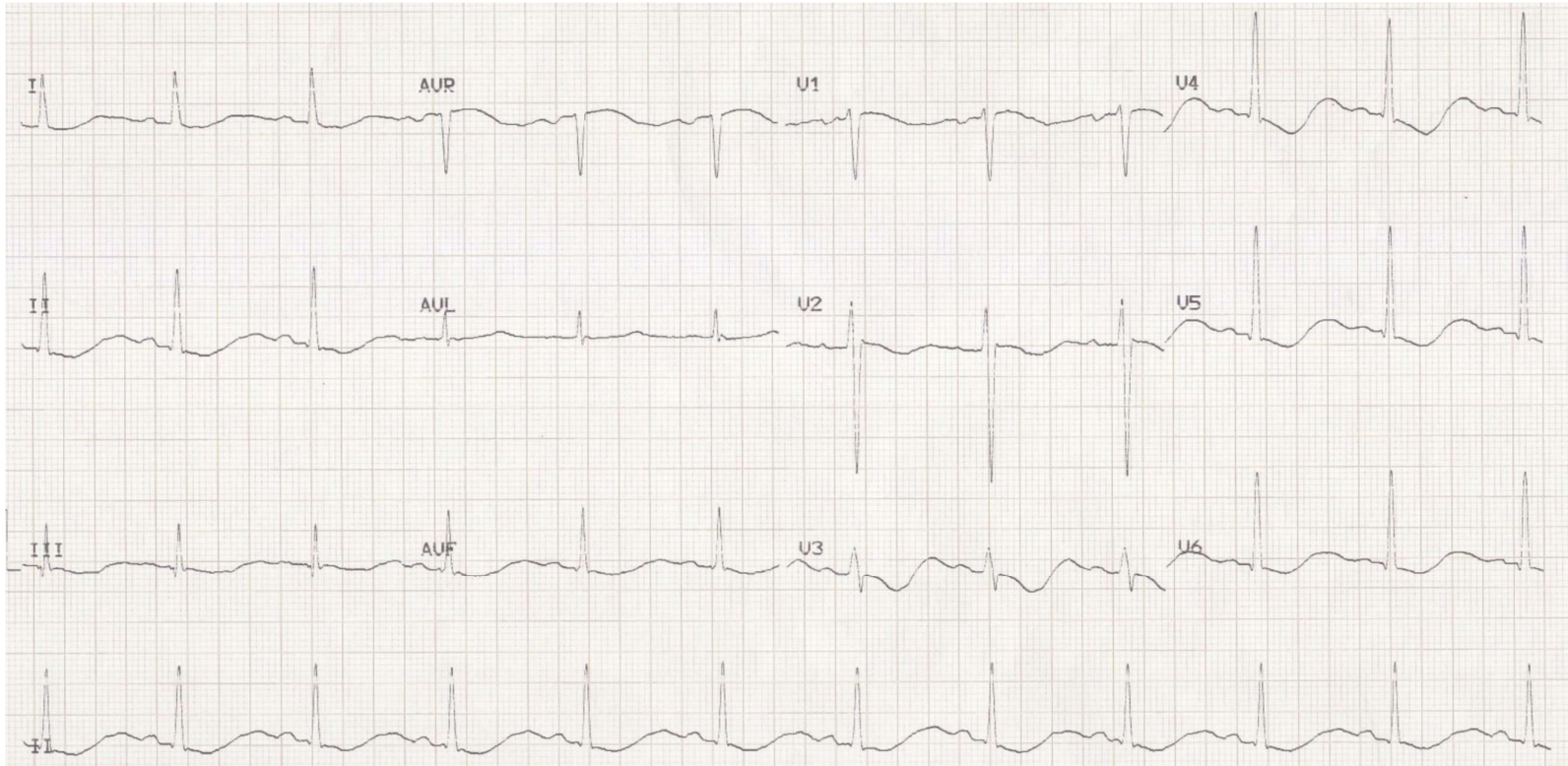


Hypocalcemia: Note the prolonged ST segment characteristic of elevated blood calcium levels.

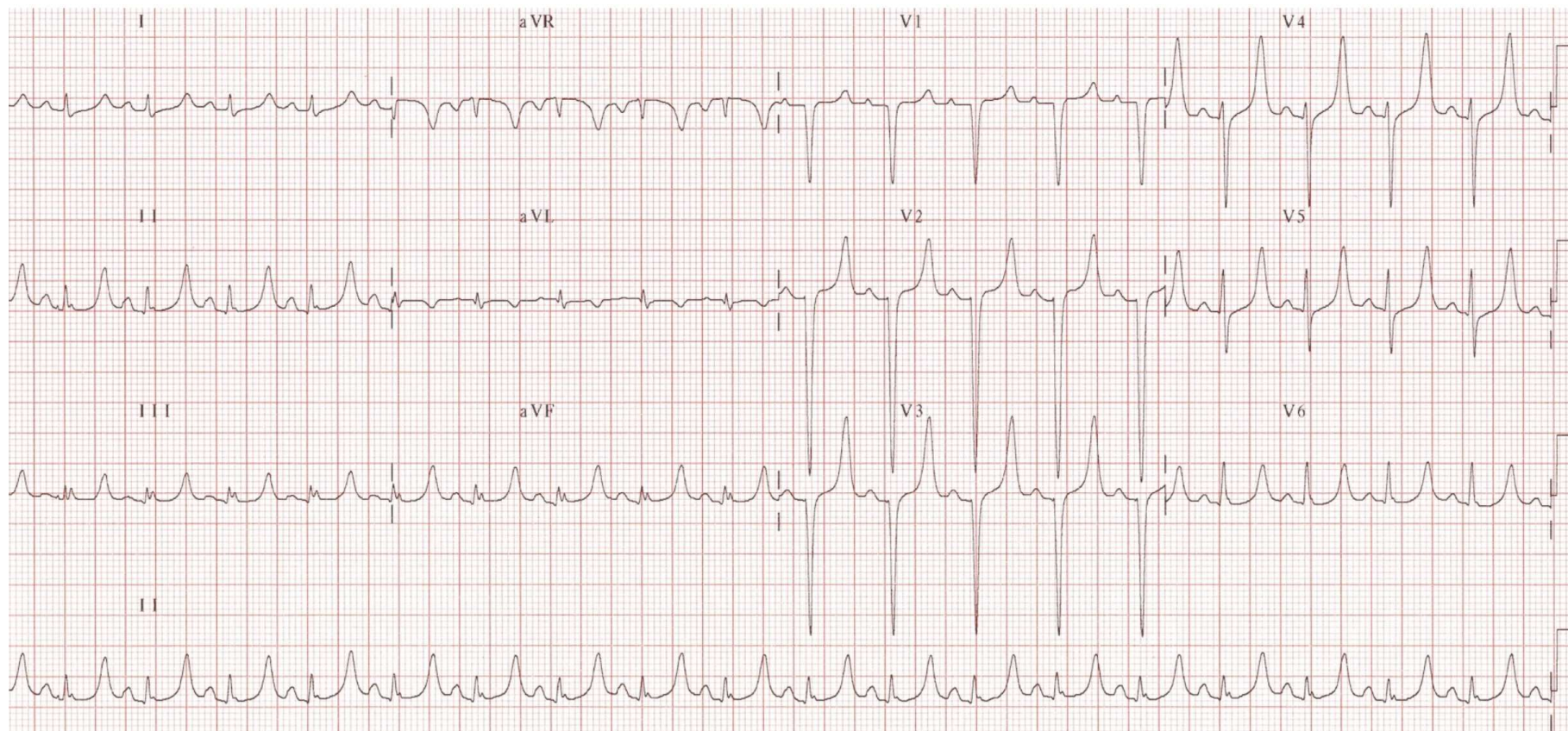


Hypercalcemia: Note the short ST segment and Osborn waves (arrows)





Hypokalemia: Potassium was 1.7 at time of tracing



Hyperkalemia: Note the markedly increased size and peaked appearance of the T wave. Potassium level was 7.0 mg/dL

- Any abnormalities suggesting hyperkalemia, hypokalemia, hypercalcemia, or hypocalcemia

Hypomagnesemia causes changes similar to hypocalcemia (QT prolongation).

Renal failure often results in multiple electrolyte derangements with a wide variety of associated ECG abnormalities.