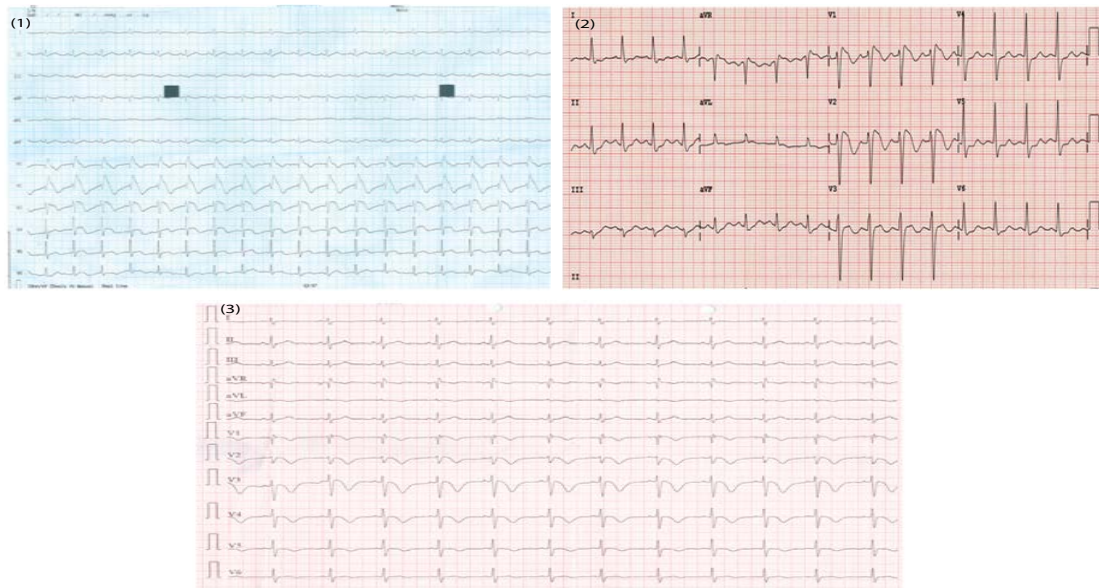


## Medical Image

### Title: pontaneous All Three Electrocardiographic Patterns in Same patient with Brugada Syndrome

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**Figure 1:** ECG showing Brugada subtype 1-covered ST-segment elevation  $\geq 2$  mm at its peak followed by a negative T-wave, with little or no isoelectric separation.

**Figure 2:** ECG showing Brugada subtype 2-saddle back ST elevation ( $\geq 1$  mm) gives rise to a gradually descending ST-segment elevation followed by a positive or biphasic T-wave.

**Figure 3:** ECG showing Type 3 subtype - right precordial ST-segment elevation of  $< 1$  mm of saddle back type.

Brugada Syndrome (BS) was described as a clinical entity in 1992. The diagnosis is made by ECG and is defined by the presence of an atypical right bundle branch block pattern with a characteristic cove-shaped ST elevation in leads V1 to V3, in the absence of obvious structural heart disease, electrolyte disturbances or ischaemia [1]. This condition is genetically transmitted as an autosomal dominant syndrome with incomplete penetrance. The ECG changes of BS are dynamic, transient [2] and can vary spontaneously which also makes it difficult to assess its exact incidence. Three subtypes have been recognised, based on different ECG features.

A 59-year-old male presented to the ED after an episode of palpitations that began 60 minutes earlier. He was resuscitated outside for ventricular tachycardia, referred to our hospital in view of Electrocardiographic changes. He had no prior medical problems and was not on any medications. The electrocardiogram (ECG) showed subtle downsloping ST-segment elevation in leads V1, to V3 suggestive diagnostic of Brugada syndrome (Figure 1). Results of laboratory investigations and chest x-ray were normal. Later next day patients ECG showed type II pattern of BS (Figure 2) followed by type III ECG pattern (Figure 3) spontaneously. This case is an example demonstrating the dynamic ECG changes of all three subtypes in a single individual spontaneously.

#### References

1. Brugada P, Brugada J (1992) Right bundle branch block persistent ST segment elevation and sudden cardiac death: a distinct clinical and electrocardiographic syndrome. A Multicenter Report. *J Am Coll Cardiol* 20: 1391-1396.
2. Mattu A, Rogers RL, Kim H, Perron AD, Brady WJ (2003) The Brugada syndrome. *Am J Emerg Med* 21: 146-151.