

Background:

Brugada Syndrome was originally described as an Autosomal Dominant Sodium Channelopathy.

Characterized by consecutive ST elevation in the precordial leads in patients with no structural cardiac abnormalities.

Presentation can vary from palpitations and simple arrhythmias to collapse sudden death.

Diagnosis is based on the ECG findings and the presence of criteria such as family sudden death <45, syncope, documented VF or polymorphic VT, family ECG abnormalities (Coved ST elevation), nocturnal agonal respiration.

Treatment can be pharmacological or with ICD depending on the severity of the episodes an risk stratification

Case Report:

39 year old man, presented to the Emergency Department with history of collapse while in rest. No vagal symptoms prior to collapse no chest pain or shortness of breath. Previous episode in the past in similar circumstances.

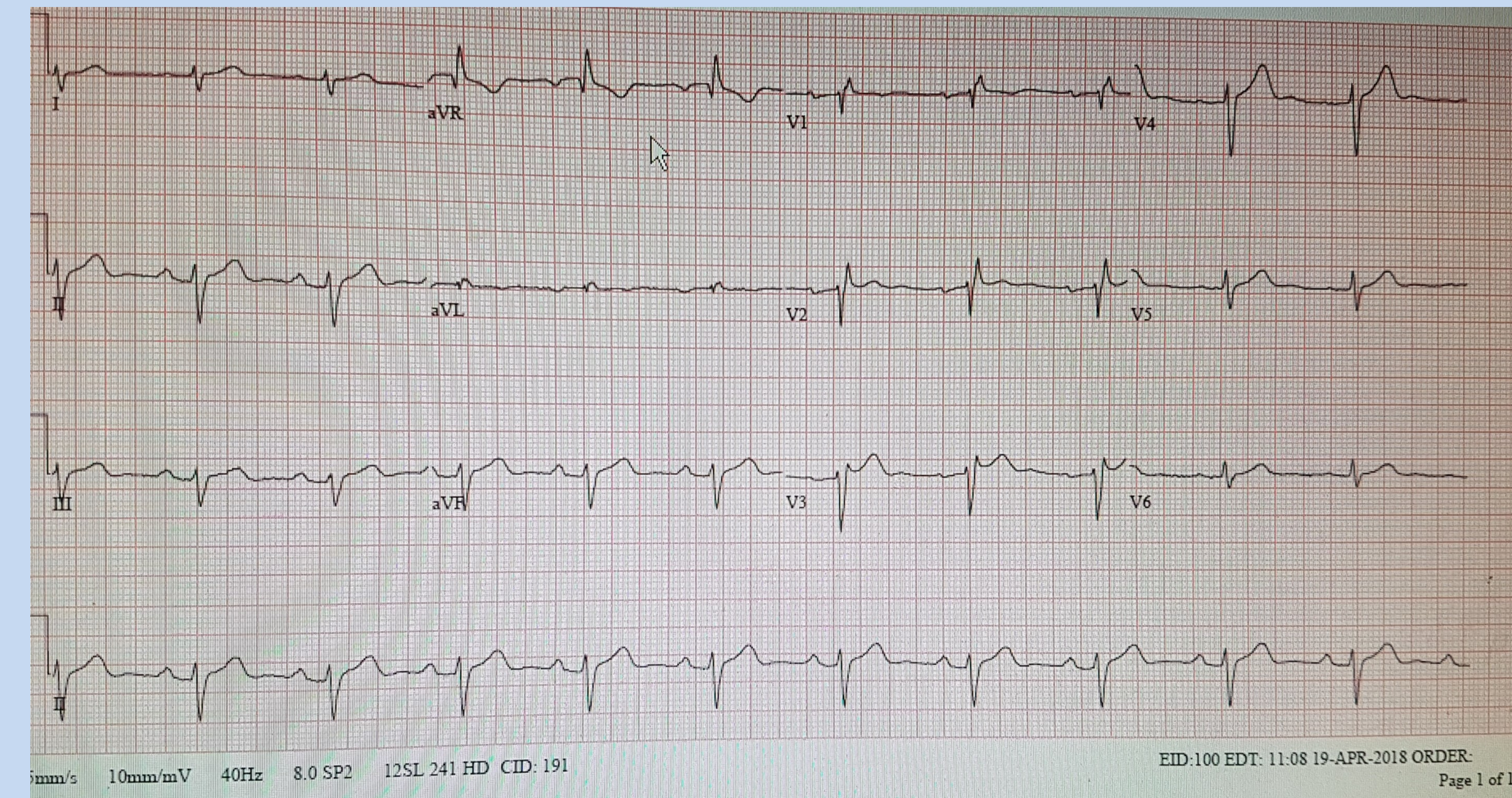
Complaining of getting dizzy during exercise, no family history of cardiac disease or collapse no personal history of cardiac disease, denies smoke or drugs use.

On examination normal vitals with presence of systolic murmur audible on the aortic valve no alteration to pulses.

ECG on arrival showed ventricular trygemini with 1st degree AVB. Patient start to complaint from palpitations and had a second ECG showing ST elevation V1-V2-V3-V4.

CK and troponin under normal ranges. Patient was admitted for cardiology review , 24 hour tape and Echocardiogram after a 3rd episode of collapse in the department.

Patient self discharged from the ward before completing further studies.



Conclusion and Educational Clinical Relevance:

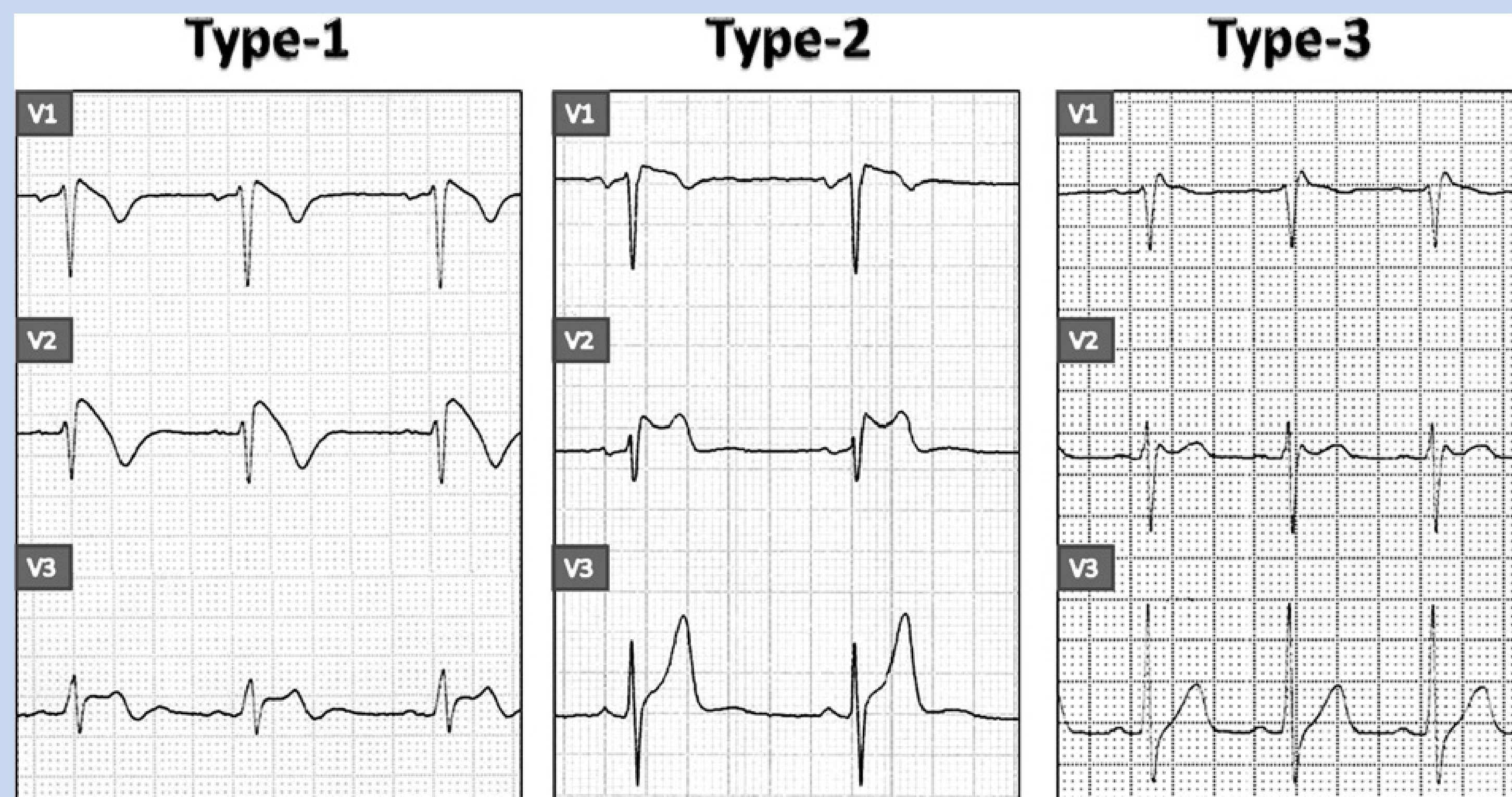
Brugada syndrome is not a common presentation but needs to be in the list of differentials while reviewing young patients presenting with collapse episodes and ECG changes simulating STEMI,

Patients attending ED asymptomatic could have Brugada Syndrome and wrongly discharged with inadequate follow up if the Emergency clinician doesn't have high grade of suspicion or is unable to recognize subtle ECG changes.

Risk startaification and further electrophysiological studies are required to avoid complications and sudden death.

References:

1. **B. Benito et al.** « Brugada Syndrome » Progress in Cardiovascular Diseases, Vol. 51, No. 1 (July/August), 2008: pp 1-22
2. **Y. Mizusacwa, et al** “Brugada Syndrome”, *Circ Arrhythm Electrophysiol.* 2012;5:606-616.



Progress in Cardiovascular Diseases, Vol. 51,
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