

The Bayes-Brugada Syndrome

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Both BrS and Bayés syndrome have atrial arrhythmia tendency. BrS patients exhibit an abnormally high proportion of atrial arrhythmias that are found in »25% of cases since the arrhythmogenic substrate is not limited to the ventricles. In the original discovery manuscript by the Brugada brothers (1), temporary AF was mentioned, as well as by authors from Brazil, (2) from Japan (3), and from Greece (4). This Greek authors verified an elevated incidence of paroxysmal AF in patients with spontaneous or induced type 1 ECG Brugada pattern and mention that the presence of atrial tachyarrhythmias may reflect an advanced stage of the disease. The prognostic significance of paroxysmal AF, particularly in asymptomatic patients with an ECG pattern consistent with BrS requires further evaluation. Physicians should always be aware of BrS in young patients with lone AF, especially in those with a history of syncope. There is a more advanced disease process in BrS patients with spontaneous atrial arrhythmias and ventricular inducibility was significantly related to a history of atrial arrhythmias. The incidence of atrial arrhythmias in patients with a spontaneous electrocardiogram of BrS was 26% vs 10% in patients with a flecainide-induced ECG. Atrial arrhythmias are being increasingly recognized in inherited arrhythmogenic disorders particularly in patients with Brs and congenital short QT syndrome.

In patients with an indication of ICD, the incidence of atrial arrhythmias reached 27% vs 13% in patients with BrS but without ICD indication.

Inappropriate shocks due to atrial arrhythmias episodes were observed in 14% of ICD patient's vs 10.5% of appropriate shocks; The implantation of a single-chamber device is as an independent predictive factor of inappropriate ICD discharges. Careful programming of single-chamber ICD should be recommended to avoid inappropriate discharges in patients with BrS (5)

A publication by Eckardt L et al, indicates a frequency for supraventricular arrhythmias of 29%.(6) These authors described episodes of AV supraventricular tachycardia with reentry. Sinus node dysfunction(SND) is not a rare concomitant disorder in BrS and there is a possible genetic connection. SND is associated with AF. (7)

AF is prevalent in cardiac channelopathies and may be the presenting feature in some patients. The pathogenesis is related to the primary ion channel dysfunction in atrial myocytes that affects atrial conduction or repolarization. The development of AF is associated with adverse outcomes, and its management is challenging in these patients. (8)

Interatrial block (IAB) was first identified as a distinct entity in 1979 by Catalanian Professor. Bayés de Luna. Advanced IAB is the consequence of a conduction delay in Bachmann bundle manifested in the ECG by a P-wave duration ≥ 120 ms and plus-minus P-waves in inferior leads. This plus-minus pattern does not occur in partial or incomplete IAB. IAB is an independent predictor of new-onset AF following pharmacological cardioversion, in patients with advanced Chagas' disease and an IVD, after pulmonary vein isolation to treat AF and after successful isthmus-dependent atrial flutter ablation, among other populations(9)

References

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