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Diagnostic drugs for Brugada syndrome

These sodium channel blocking drugs are used to test for Brugada syndrome in patients suspected of Brugada syndrome but without a spontaneous type-1 Brugada ECG (see below). Tests should always be performed under continuous ECG monitoring and controlled conditions (see also [Antzelevitch et al. 2005](#)). To diagnose Brugada syndrome instead of solely a Brugada ECG, there are several other criteria which should be met (see the consensus reports: [Wilde et al. 2002](#) and [Antzelevitch et al. 2005](#))

Notes about the lists:

- On this list we summarized the drugs that are generally regarded in the literature as appropriate to perform a diagnostic test for Brugada syndrome. Please note that these drugs (most probably) have a lower than 100% sensitivity and specificity for Brugada syndrome ([Priori et al. 2000](#)). In addition there is difference between these drugs where sensitivity and specificity are concerned (e.g. flecainide seems to have considerable lower sensitivity than ajmaline).
- Drugs are listed with up to 2 common brand names. There are several brand names for many of the drugs, which are not all listed. It is also important to look at the active drugs in medicines that contain a combination of drugs.
- Lists contain links to [DrugBank](#) or [PubChem](#) (click on the drug name) and also (several) [PubMed](#) links to articles on the association between the drug and Brugada syndrome (click on the reference).
- Download a pdf-file of this page [here](#)

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Generic name	Brand name®	Class / Clinical use	Comments / References
Ajmaline	e.g.	Antiarrhythmic Agent (1A) /	Used for diagnostic test (maximal dose 1mg/kg) Brugada et al. 1997

Ajmaline	e.g. Gilurytmal®	Antiarrhythmic Agent (1A) / Arrhythmias	Brugada et al. 1997 Rolf et al. 2003 Wolpert et al. 2005
			Used for diagnostic test (maximal dose 2mg/kg) Krishnan et al. 1998 Brugada et al. 2000 Gasparini et al. 2003 Wolpert et al. 2005* Meregalli et al. 2006
Flecainide*	e.g. Tambacor®	Antiarrhythmic Agent (1C) / Arrhythmias	
			Used for diagnostic test (maximal dose 1mg/kg) Takenaka et al. 1999 Fujiki et al. 1999 Takaqi et al. 2002
Pilsicainide	e.g. Sunrhythm®	Antiarrhythmic Agent (1C) / Arrhythmias	
			Used for diagnostic test (maximal dose 10mg/kg) Miyazaki et al. 1996 Brugada et al. 1997 Joshi et al. 2007
Procainamide#	e.g. Procan® Pronestyl®	Antiarrhythmic Agent (1A) / Arrhythmias	

* It has been reported by [Wolpert et al.](#) that flecainide has a 32% lower sensitivity to uncover a type-1 Brugada ECG than ajmaline.

In the first consensus report ([Wilde et al.](#)), the sensitivity of procainamide was considered relatively low.

The diagnosis of the characteristic type-1 (or coved type) Brugada ECG (figure 1) is made from the right precordial ECG leads (see also [Wilde et al. 2002](#)). Sensitivity of the ECG can be increased with alternative placement of ECG leads to the intercostal space above V1 and V2 (figure 2).

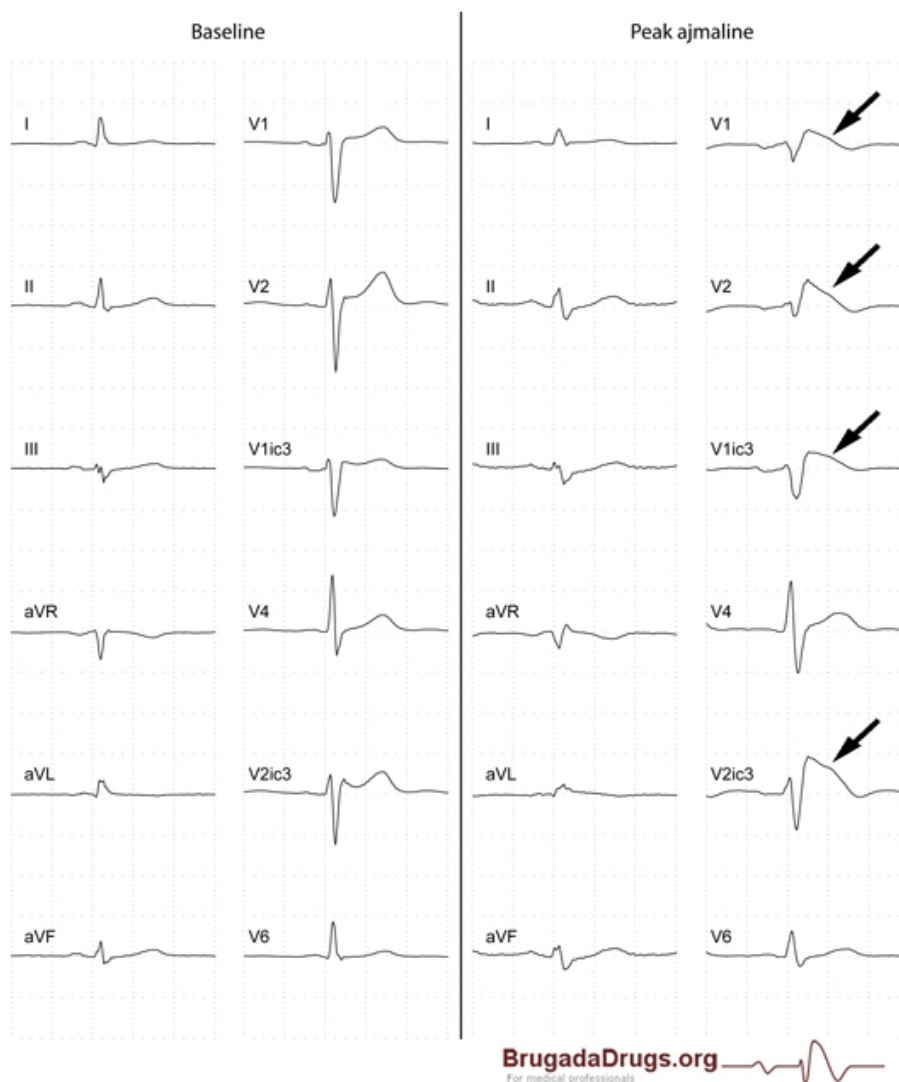


Figure 1: Change of a normal ECG into a type-1 Brugada ECG during ajmaline challenge. Note the coved type ST segments in the right precordial ECG leads (note V3 is placed in the 3rd intercostal space above V1, Fujiki²¹, and V5 is placed in the 2nd intercostal space above V2, Fujiki²¹). For more ECGs, see

covered type ST segments in the right precordial ECG leads (note V3 is placed in the 3rd intercostal space above V1 [V1ic3], and V5 is placed in the 3rd intercostal space above V2 [V2ic3]). For more ECGs, see ECGpedia.org.

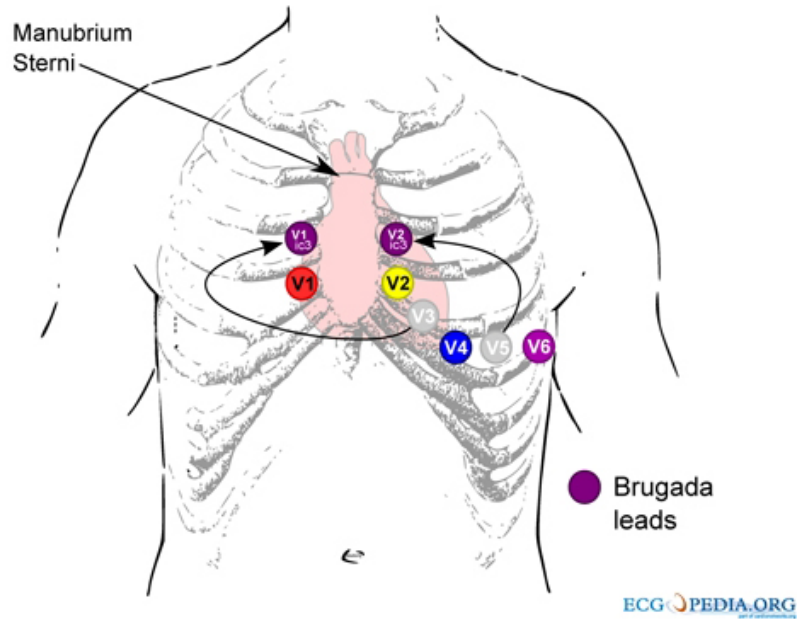


Figure 2: Alternative ECG lead placement for Brugada syndrome. Figure from ECGpedia.org

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