

A 66-year old woman with extrasystolic palpitations and no obvious heart disease - 2012

Prof. Dr. Bernard Belhassen

Dear Andres:

I would be happy to share this tracing with our colleagues of the panel.

What is your diagnosis ????

A 66-year old woman with extrasystolic palpitations and no obvious heart disease.

Once we will get the input of our eminent colleagues, I will enclose the data from the electrophysiologic findings so that you will be able to discuss the tracing more in detail.

Best regards

Bernard Belhassen



OPINIONES DE COLEGAS

Prof Belhassen

Thanks for this tracing. I would love to test my ability in a topic that is not my area of expertise.

1. Sinus rhythm
2. Ventricular bigeminy originated in the left posterior fascicle (the image resembles the "Belhassen origin for sustained VT"). The coupling interval is fixed, suggesting a reentry mechanism rather than automatic origin.
3. VA conduction 1:1 after the PVC, reinforcing the idea of ventricular origin rather than SV.
4. If you allow me to introduce a new terminology, I would call this: **Belhassen Ventricular Bigeminy**.

I would love to hear other voices and to see the intracardiacs.

Best personal regards,

Adrian Baranchuk MD FACC FRCPC
Queen's University

Queridos amigos: yo también estoy de acuerdo con Dr Adrian Baranchuk con respecto a una bigeminia del tipo Belasshen.

Hay una P retrograda bastante alejada del QRS.

Pero parece que Bernard, quiere mostrar talvez como las PVC'S desaparecen con verapamil, pero esto ya es conocido por todas las publicaciones de este extraordinario (austending) electrofisiologista

Pero me parece que Bernard descubrió algún secreto que lo revelará en el estudio electrofisiológico.

Un fraternal abrazo

Samuel Sclarovsky

Hola Samuel: también concuerdo con Adrián, excepto que no me parece que haya conducción retrógrada. En V1 se ve bien la onda P justo a la finalización del QRS y me parece que da justito para lo que debería ser el P-P sinusal. En Di se ve una deflexión negativa bastante más alejada del QRS, que pienso que es producida por la impronta previa positiva de la onda P sinusal en el ST, en medio del cambio secundario de la repolarización generado por la activación ventricular ectópica.

Si esa deflexión negativa correspondiese a la onda P uno debería pensar en conducción retrógrada por una vía accesoria izquierda oculta, pero creo que no es el caso. También me parece ver en DII que la onda P posEV es positiva. En fin, es todo lo que puedo decir por ahora. No obstante, es factible que haya gato encerrado...pero no veo donde está la jaula...JAAAA!!!!.

Un abrazo grande

Pablo A. Chiale

Dear Adrian: I noted that you did not specifically answered to my 3 questions:

- Is the RBBB pattern typical for VPC?
- Why not atrial or His extrasystoles with RBBB?
- Why not sinus rhythm with double AV nodal response (fast pathway with narrow QRS and slow pathway with functional RBBB)

Bernard Belhassen

Querido Pablo

Yo veo la onda P negativa en la cara inferior y me parece retroconducida.

Del origen del latido y la nomenclatura propuesta por mi no dices nada, tal vez porque eres muy respetuoso y no quieres herir mis sentimientos: yo por el contrario, no dudaría en crucificarte si hiciera falta....

O te robaría el funyi marrón...

Adrián Baranchuk

Dear Prof Belhassen

Your original email was asking "What's your diagnosis?" (there were no specific questions attached!!!) so I did answer what I thought it was the most likely diagnosis.

However, I am happy to expand a bit more:

1. I do not think that the premature beat is SV because I do see retrograde conduction, thus, the origen has to be nodal or ventricular. Given a wide QRS, it favors ventricular origin (hissian origen with aberrancy is a possibility, but this is my limitation - or the ECG limitation-happy to see the electrograms).

2. Your hypothesis #3 (2 for 1) implies dual AV node physiology and usually this tachycardia is quite symptomatic (usually misunderstood as AF) and also associated with AVNRT. We did publish a case (RIA, in English) of a "twofie" (2 for 1) using a fast pathway and the accessory pathway as antegrade conduction. I would be very surprised if this is the case in the presented case, but happy, again, to discuss the electrogram.

Thanks for the opportunity to provide my 2 cents in this case, and to learn from you

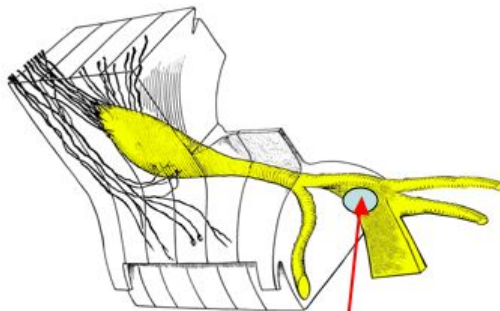
Adrián Baranchuk

Como vas a hacerme eso Adrián...., pero me dejás por lo menos el botín enterizo y el cuello con brillo; para que pida una guitarra y cante para ella...JAAAAA!!!! Honestamente, la P detrás de los latidos prematuros me dejan una pizca de duda pero no me parecen por conducción retrógrada ¿que opinás de la negatividad que se ve en DI y creo que en aVL, si no recuerdo mal (estoy fiaca para ver de vuelta el trazado, pero en DI seguro) bien separada del QRS, ¿qué es eso para vos? hagamos un poco de semiología a ver si logramos embocarla. Pasa que allí hay justo cambios 2rios de la repolarización que no permiten una comparación con la de los latidos sinusales....

Un abrazo

Pablo A. Chiale

Dear all Here my interpretation,



Dear teacher BB: Unifocal or monomorphic bigeminism of Premature ventricular contractions with short and fixed or constant couplet interval and originated in point with red arrow: Incomplete RBBB and grade of LAFB pattern Ectopic beats from the same focus tend to have a constant coupling interval (the interval between the ectopic beat and the preceding beat of the basic sinus rhythm). PVCs with the same morphology but with a varying coupling interval ($>80\text{ms}$) should make one suspect a parasystolic mechanism. There is a full compensatory pause following the PVC: The sum of the RR intervals that precede and follow the ectopic beat (or the RR interval that contains the PVC) equals two RR intervals of the sinus beats. Bigeminy is where one PVC occurs after every normal beat, in an alternating pattern. Bigeminy (Latin: Bi-Two Gemini-twins) is a descriptor for a heart arrhythmia in which abnormal heart beats occur every other concurrent beat. A typical example is with bigeminal PVC. Following the PVC there is a pause and then the normal beat returns - only to be followed by another PVC.

Unifocal or Monomorphic: A unifocal PVC is where the depolarisation is triggered from the one site in the ventricle meaning that the peaks on the ECG look the same.

Short-couplet: A PVC so early diastole in the cardiac cycle that it falls on the apex of the preceding T wave, possibly presaging ventricular tachycardia or fibrillation; 'R-on-T'. The R-on-T phenomenon may result in ventricular tachycardia and/or ventricular fibrillation. Warmest regards Andrés.

Andrés R- Pérez Riera
