

Paciente masculino de 56 años con dolor osteocondrítico – 2007

Dr. Ricardo Pizarro

El Dr. Ricardo Pizarro envía los siguientes trazados ECGs correspondientes a un paciente masculino de 56 años, con dolor de tipo osteocondrítico que realiza actividad física. TA 130/85

569; Dolor precordial ⁴ ostroconductiva. Sano.
sin medicación. RA: 130/85. Análisis físico.



Interpreta.

¿Actividad auricular?

ⓑ ♂; 56a; Dolor torácico "ostiocondritis" - sano
sin medicación - PA: 130/85. Au Trabajo Físico.



Disociación
de Fontaine.



OPINIONES DE COLEGAS

Dado que no han habido aportes acerca de los trazados provistos por el Dr. Pizarro y siendo que hay otros casos para ser discutidos, enviamos la interpretación diagnóstica del ECG y un texto teórico en inglés, aportado por Andrés Pérez Riera acerca de la entidad en cuestión.

Diagnóstico:

Disociación isorrítmica por interferencia de estímulos

Desarrollo teórico

Excerpt from Atrioventricular Dissociation

Background: Atrioventricular (AV) dissociation is a condition in which the atria and ventricles do

not activate in a synchronous fashion but beat independent of each other. AV dissociation usually refers to the situation in which the ventricular rate is the same or faster than the atrial rate. When the atrial rate is faster and the atria and ventricles are beating independently, complete heart block is present; this is distinct from AV dissociation. While complete heart block can be properly considered a form of AV dissociation, Also, in AV dissociation, no retrograde ventriculoatrial conduction occurs.

When the atrial rate is the same as the ventricular rate but the P wave is not conducting, the rhythm disturbance is known as isorhythmic AV dissociation. When the rates are similar but occasionally the atria conduct to the ventricles, the rhythm is known as interference AV dissociation.

AV dissociation can be a benign phenomenon and can be complete or incomplete. When incomplete, some of the P waves conduct and capture the ventricles (ie, interference AV dissociation), but if they do not, it is complete AV dissociation. Complete AV dissociation can mimic AV block, but the fact that none of the P waves conduct has more to do with timing of the P waves in relation to the QRS complex rather than the presence of AV block.

Pathophysiology: A normal cardiac impulse arises from the sinus node and is conducted through the AV junction, the bundle of His, and the bundle branches to the ventricles. The sinus node is the dominant pacemaker because its intrinsic rate is faster than subsidiary pacemakers in the AV junction or in the ventricle. AV dissociation can result from (1) slowing of the dominant pacemaker (sinus node), which allows an escape junctional or ventricular rhythm, or (2) acceleration of a normally slower (subsidiary) pacemaker, such as a junctional site or a ventricular site that activates the ventricles without retrograde atrial capture.

Conditions that can initiate AV dissociation include surgical and anesthesia interventions (including intubation), conditions that increase catecholamine levels (including infusions of inotropes) and drugs that block catecholamines, sinus node disease, digoxin toxicity, myocardial infarction and other structural heart disease, hyperkalemia, vagal activation (eg, neurocardiogenic syncope, vomiting), ventricular tachycardia, or ventricular pacing. AV dissociation can be seen after radiofrequency ablation of the slow pathway responsible for AV nodal reentry if some of the vagal fibers are damaged. After exertion, if AV dissociation is present from an escape pacer, it can be a normal phenomenon. Whatever the cause, AV dissociation usually is secondary to some other cause.

There are two isorhythmic A-V dissociation patterns I and II. In pattern I, the P wave fluctuates cyclically back and forth across the QRS complex. The mechanism responsible for this type of A-V synchronization represents a typical biologic feedback control system. The P-R interval is a determinant of stroke volume, which in turn influences the arterial blood pressure. The blood pressure has an inverse effect on the discharge frequency of the S-A node through the baroreceptor reflex. The S-A nodal frequency then affects the P-R interval, to close the feedback loop.

In pattern II, the P wave is in a fairly constant position relative to the QRS complex. It is usually coincident with the QRS complex or appears on the ST segment or first half of the T wave. The mechanism producing synchronization in pattern II type of isorhythmic dissociation has not been established conclusively.

Internationally: Little epidemiologic information is available regarding the frequency of AV dissociation.

Mortality/Morbidity: AV dissociation by itself can be benign. Any adverse effects are related to ensuing bradycardia, AV dyssynchrony, or underlying conditions