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CASE REPORT

ECG of a Guinea Pig with Ventricular Premature Complex

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SUMMARY

Ventricular premature complex is a rare case in guinea pigs. The guinea pig in this report was placed on a table in sternal position and recorded electrocardiography. In this tracing in a guinea pig; ventricular premature complexes appear different than the others and is not associated with P waves. The ventricular responses in this tracing are irregular. Ventricular premature complex in this case could be associated with congenital heart defect or cardiomyopathy.

Key Words *ECG, Guinea pig, VPC*

Bir Kobay EKG'sinde Ventriküler Prematüre Kompleks Olgusu

ÖZET

Ventriküler prematüre kompleks kobaylarda nadir görülen bir durumdur. Bu raporda kobay sternal pozisyonda masaya yerleştirildi ve elektrokardiyogramı kaydedildi. Trasede, ventriküler prematüre komplekslerin birbirinden farklı ve P dalgaları ile ilişkili olmadığı görüldü. Ventriküler yanıtlar düzensizdi. Bu durumda; ventriküler prematüre kompleks, konjenital kalp defekti veya kardiyomiyopati ile ilişkili olabilir.

Anahtar Kelimeler *ECG, Kobay, VPC*

CASE DEFINITION

In this study, a male guinea pig was placed on a table in sternal position. The arm leads were placed the skin on m.triceps brachii, and the leg leads were placed the skin on m.biceps femoris. Electrode gel was rubbed into the skin in the area where the alligator clips were attached to act as a degreasing agent and thereby decrease the resistance of the skin. ECG was recorded by a direct writing electrocardiograph (Cardio fax 6851; Nihon Kohden, Tokyo). All ECGs were standardized at 1 mv=10 mm, with a chart speed of 50 mm/sec. Leads I, II, III, aVR, aVL, aVF were recorded (Edwards 1987).

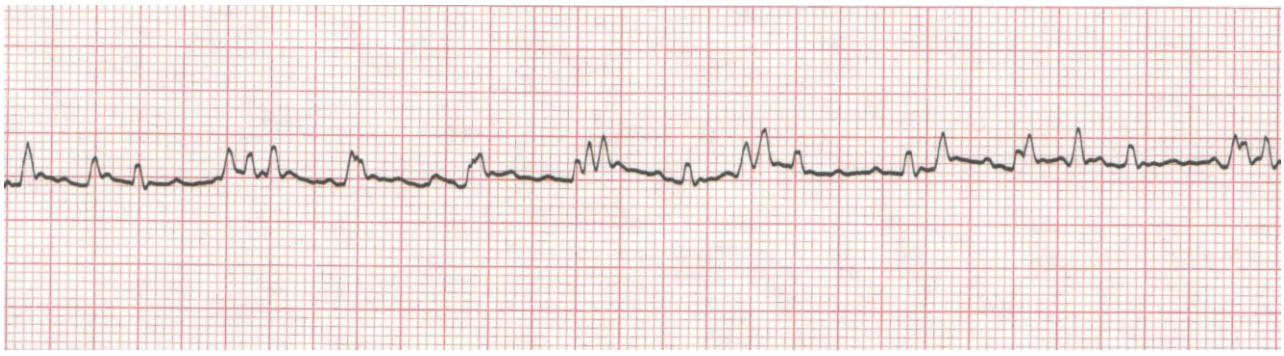

Figure1. In this tracing in a guinea pig, ventricular premature complexes appear different than the others and are not associated with P waves

Figure 1 shows the ECG of a guinea pig with ventricular premature complex (VPCs) in lead II. Some researchers reported that in VPCs, the impulse does not reach the ventricles through the normal conduction route, but spreads across the ventricles through ventricular muscle; the QRS complex appears wide and bizarre and is not associated with P waves. If the major deflection is positive, the site of origin of the VPC is more likely to be the right ventricle (Vitali and Tilley 1985; Meurs 2001). Ventricular complexes appear different than the others. This may represent dual accessory pathways or aberrant ventricular conduction (Edwards 1987). Similar findings were found in this case**.** The ventricular responses in this tracing are irregular, however, the ventricles may respond in a regular manner.

Direct effects on the cardiovascular system with secondary effects on other systems because of poor perfusion. Commonly seen in with cardiomyopathy (Anonymous 2012a). Causes include primary myocardial disease,

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electrolyte imbalance, acute toxicities, noncardiac disease such as neoplasie, gastric distention, or trauma (Anonymous 2012b). Ventricular premature complex in this case could be associated with congenital heart defect or cardiomyopathy.

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