Pseudo-Ventricular Tachycardia Pattern due to Electromagnetic Interference

Elektromanyetik Etkileşime Bağlı Yalancı Ventriküler Taşikardi Paterni

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A 26-year-old male presented with palpitation. Electrocardiogram (ECG) revealed normal sinus rhythm. Echocardiography results were normal. Holter monitoring revealed wide QRS complex tachycardia, likely VT (Figure 1). Therefore, the patient was referred to our hospital for an electrophysiological study. However, a closer observation of the tracings revealed the continued presence of normal QRS complexes in the baseline rhythm cycle length within the apparent wide complexes and an unstable baseline on the ECG before the tachycardia events. This resulted in the recognition that the wide complexes were ECG artifacts. Also the patient confirmed that he had been working in the base station during abnormal records. The most likely cause of the ECG artifact was the influence of electromagnetic interference on holter monitoring in the base station[1]. An ECG artifact can closely simulate VT, and physicians should include it in their differential diagnosis of wide complex tachycardias to minimize unneeded procedures[2].

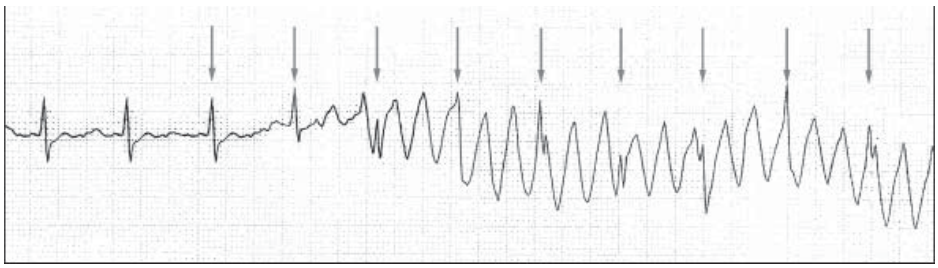

Figure 1. Electrocardiographic strip (lead II) showing polymorphic wide QRS complex tachycardia run. Red arrows signing each cycle length.

REFERENCES

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