Tremors mimicking atrial flutter in an elderly lady

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Introduction: Atrial flutter is one of the common arrhythmias. If it is not managed properly it can lead to many complications, thromboembolic phenomenon is one of the serious complications. ECG plays a pivotal role in the diagnosis of atrial flutter. We present an interesting case where electrocardiogram (ECG) recording in a patient with tremors mimicking atrial flutter.

Methods: We are reporting this case after an informed consent of the patient.

Result: A 77-year-old south asian lady with history of hypertension and Parkinson’s disease presented to a tertiary care hospital in Pakistan with cough and fever. On presentation her vitals were within normal limits. Physical exam showed bilateral resting tremors in both upper extremities and her chest examination showed signs of consolidation on right lower lung zone. On second day of admission she started having chest pain, so 12 leads ECG was done. Initial ECG was interpreted as atrial flutter. When her ECG was reviewed by a cardiologist, several features such as, sharply contoured upright p waves, different flutter wave morphologies in the same leads, more prominence of “flutter” waves in the limb leads compared to the precordial leads, and return to isoelectric baseline after sharp peaked p waves, questioned the diagnosis of AF. A repeat 12 lead ECG clearly demonstrated normal sinus rhythm, and the patient remained completely asymptomatic throughout the hospital stay.

Conclusion: Tremor induced artifacts can be mistaken for arrhythmias. Correct diagnosis is critically important, in order to avoid wrong treatment and unnecessary interventions. Our case illustrates the importance of recognizing artifact related ECG changes to prevent unnecessary investigations and treatment.