Hemodynamically unstable wide QRS complex tachycardia: a case report

Tachycardia is arrhythmia characterized by heart rate >100 / minute. According to the width of the QRS complex it can be divided into narrow QRS (<120 ms) and wide QRS tachycardia (>120 ms). Narrow QRS tachycardia is always supraventricular which means that its source is proximal to the bundle of His, while wide QRS tachycardia can be ventricular (source is in ventricle, distal to the bundle of His) or supraventricular. The strategy of treating these two conditions is different, so correct diagnosis is prerequisite for optimal therapy.\(^1,2\) We present this case because the differential diagnosis of wide QRS tachycardia and therefore treatment planning was particularly difficult due to simultaneously present atrial fibrillation with hemodynamic instability and an acute threat to life of patient.

We present patient who was hospitalized in pulmonary edema caused by wide QRS tachycardia (Figure 1) that was resistant to standard drug therapy and demanded mechanical ventilation support. During each episode of VT, DC was done because of hemodynamic instability. Because of multi organ...
Failure we considered the application of ECMO. Before ECMO urgently EPS study was done (Figure 2). Study has shown that patient has atrial flutter/fibrillation with occasionally adromic conduction. The patient underwent successful ablation of the AV node with pacemaker implantation, with following complete recovery of the patient.

**Figure 2. An electrophysiology study: His potential before ventricular QRS complex.**

**Literature**
