

Clinical Setting: 48 y M with schizophrenia found collapsed in stairwell of hospital garage, now complaining of "can't breath."

HR - 138

BP - 90/44

SPo2 - not picking up

RR - 28

Temp - 100.1 F

This is a case of **Massive Pulmonary Embolism**.

This is a scary looking EKG. There is tachycardia to 140's, irregular rhythm, without clear p-waves. The QRS is wide, with a RBBB morphology. The baseline is difficult, but it appears there is ST elevation in aVR, and ST depressions at least in V3-6, possible inferiorly as well. There is questionable ST elevation in lead II, but given the baseline its tough to tell.

Assuming the a-fib and RBBB are new, these combination of findings are very concerning for acute right heart strain/failure, most commonly due to pulmonary embolism.

This gentleman had a cardiac arrest immediately after CT scan confirmed massive PE, and had a great response to thrombolytics, left the hospital neurologically intact. The PE was presumed due to COVID.

[See link for LITFL review of EKG findings in PE.](#)

[Paper on prognostic value of ECG findings in PE](#)