Is Arrhythmia Influencing Percutaneous Coronary Intervention Strategy in ST Segment Elevation Myocardial Infarct with Onset More Than 12 Hours? (A Case Report)

Introduction: There is general agreement that reperfusion therapy should be considered if there is clinical and/or Electrocardiographic (ECG) evidence of ongoing ischemia in patient ST-segment elevation myocardial infarction (STEMI). Even if, according to the patient, symptoms started 12 hours before as the exact onset of symptoms is often unclear, or when the pain and ECG changes have been stuttering.

Methods: CASE REPORT A 39 y.o male presented with chest pain for 2 days before admission. Patient had history of uncontrolled hypertension and smoking habit for 20 years. ECG on arrival showed Ventricular Tachycardia (VT), patient underwent cardioversion. Following ECG 12-Lead after cardioversion shown QS wave in lead II, III, AVF. Coronary angiography was performed and showed 99% stenosis in Right Coronary Artery (RCA). Percutaneous Coronary Intervention (PCI) was done in RCA.

Result: There is, however, no consensus as to whether PCI is also beneficial in patients presenting > 12 h from symptom onset in the absence of clinical and/or electrocardiographic evidence of ongoing ischemia. In such asymptomatic late-comers, a small (n=347) randomized study has shown myocardial salvage and improved 4-year survival resulting from primary PCI, compared with conservative treatment alone, in patients without persistent symptoms 12 – 48 h after symptom onset. The patient in this case came with unstable VT, cardioversion was performed as initial management. Ongoing ischemia findings in this patient were VT and persistent chest pain. Even though the onset of the symptoms were >12 hours, PPCI rather than pharmacological only therapy was chosen as the preferred modality.

Conclusion: Onset of symptom <12 hours is commonly used as major indication for revascularization, but The essence of this case is that onset > 12 hours with ongoing ischemia which are characterized by ECG findings (in which one of them is VT), and clinical symptoms such as angina which persist, are also indication for PCI.