Ventricular Extra Systole in Acute Coronary Syndrome: How Should it be Managed?

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Introduction: Ventricular Extra Systole (VES), typically asymptomatic, is common after acute Myocardial Infarct (MI), with a reported incidence as high as 93%. VES that persist more than 48 to 72 hours after an MI may be associated with an increased long-term arrhythmic risk. Frequent VES even in the setting of acute MI need not to be treated unless they directly contribute to hemodynamic compromised. This case report aims to describe about how to treat VES in Acute Coronary Syndrome (ACS).

Methods: A 39 y.o female came to triage with complaining of palpitation and epigastric pain. The pain was induced by exertion, the duration increased by time, and not elevating by rest. Associated symptoms were nausea, anorexia, and diaphoresis. BP 130/90 mmHg, pulse 120x/min, RR 24x/min. the patient had history of PCI 4 months prior to symptoms develop. Electrocardiography results were ST-segment down-sloping on V4-V6 (anteroseptal ischemia) and VES noted. Troponin-HS result was within normal range. ISDN, Clopidogrel, Enoxaparin, Valsartan were given as the initial treatment.

Result: VES commonly develop in condition when heart structure is disrupted. Pathomechanical of this condition include ischemic, pump function defect, and different depolarization rate which cause new focus in conduction system. In patient with ACS, we should consider and differentiate whether developing VES is malignant or benign. Signs of malignant VES include: R-on-T phenomenon, three or more in the row, multiform PVC, and VES that develop in ACS setting with hemodynamic instability. In those settings, lidocaine can be considered as additional treatment. As from the case, the characteristics of VES are benign, so no anti-arrhythmic drug is needed.

Conclusion: Classification of VES that develop in ACS is the key point while managing the patient. To achieve this, not only ECG but also hemodynamic stability should be monitored, especially on the first 24-hours.