Case Management of Unstable Angina (UA) and Non ST Segment Elevation Acute Coronary Syndrome (NSTE-ACS)

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NSTE-ACS is approximately 2/3 of patients presenting with ACS. Clinical presentations range from mild symptoms, severe angina longer than 20 minutes, recent onset of angina, post MI angina, cardiogenic shock, heart failure, and cardiac arrest. Criteria for diagnosis are angina, ischemic ST and T changes, and rising of cardiac troponin I or T.

Rx at ER includes record of vital signs, ECG within 10 minutes, blood test for hsC-TnT, CBC, glucose, BUN, Cr, LFT, ECG monitoring, oximetry, CXR, and echo. If NSTE-ACS is highly suspicious, then isordil 1 tab sublingual, dual antiplatelets (DAPT), ASA and clopidogrel or ticagrelor will be given. If saturation < 90%, O2 is considered. Then, anti-thrombin should be given before transferring patients to CCU.

For Rx at CCU, an immediate invasive strategy within 2 hours is recommended in patients with very-high-risk criteria: hemodynamic instability or cardiogenic shock, recurrent or ongoing chest pain refractory to medical treatment, life-threatening arrhythmias or cardiac arrest, mechanical complications of MI, acute heart failure with refractory angina or ST deviation, recurrent dynamic ST-or T-wave changes, particularly with intermittent ST-elevation.

An early invasive strategy within 24 hours is suggested in patients with high-risk criteria: rise or fall in cardiac troponin compatible with myocardial infarction, dynamic ST- or T-wave changes, and GRACE score ≥140. Whilst, an invasive strategy within 72 hours is recommended in patients with intermediate risk criteria: DM, CKD, LVEF ≤40% or CHF, early post-infarction angina, recent PCI, prior CABG, GRACE score >109-<140, or recurrent symptoms or known ischemia on non-invasive test. GP IIb/IIIa inhibitors during PCI should be considered for bailout situations or thrombotic complications. DES is more preferable than BMS. IABP is indicated in patients with hemodynamic instability.

In post PCI and after discharge, DAPT will be given for 1 year, with beta blockers, ACEIs or ARBs for those having LVEF <40%. Coronary risk factors should be controlled and cardiac rehabilitation program is recommended. CRT-D or ICD is also considered in symptomatic patients with LVEF ≤35% despite optimal medical therapy more than 40 days after the acute event and without options of revascularization.

To conclude, there are 6 steps of management of NSTE-ACS, including initial evaluation, diagnosis and risk stratification, antithrombin, invasive or selective invasive strategy, revascularization modalities, and hospital discharge with post discharge management.

Keywords: Unstable angina (UA), non ST segment elevation acute coronary syndrome (NSTE-ACS), Percutaneous coronary intervention (PCI)