**VULNERABLE PLAQUE AND VULNERABLE PATIENT: INSIGHTS FROM IVUS AND OCT**

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Pathological studies have reported findings of unstable or vulnerable plaque that may prone to acute coronary syndrome (ACS) and sudden cardiac death. Recent development of the intracoronary imaging modalities such as intravascular ultrasound (IVUS) and optical coherence tomography (OCT) have confirmed that positive remodeling, plaque rupture, thin-cap fibroateroma (TCFA) and presence of micro-channels were possible markers of vulnerable plaque. By IVUS, positive remodeling is defined as a vessel size of the target lesion of greater than that of reference segment. Plaque rupture is defined as a disruption of the fibrous cap segment overlying necrotic core. By OCT, TCFA is defined as a presence of thin (<65micron) fibrous cap overlying the necrotic core. Micro-channel is defined as a presence of small circular structure inside the vessel wall. Several IVUS studies have repeatedly shown that positive remodeling and plaque rupture were characteristic findings observed in patients with ACS. Presence of positive remodeling is also related to long-term prognosis of the patients with ACS. On the other hand, TCFA and micro-channel by OCT may be related to future risk of plaque progression as well as plaque rupture. In conclusion, IVUS and OCT are useful intracoronary imaging modalities to identify vulnerable plaque and vulnerable patients.