iPOP: Imaging and Physiology of BVS

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The Absorb Bioresorbable Vascular Scaffold System (Absorb) is the first naturally dissolving stent for the treatment of coronary artery diseases (CAD). Absorb provides the needed acute and early term improvements that CAD patients require without leaving a permanent implant behind that can create other problems long term. Unlike a permanent metallic stent, Absorb is designed to fully resorb in the patient's body through a natural metabolic process restoring vasomotor functionality that would be inhibited by the permanency of metal stents. Absorb is the next revolution treatment option for CAD. Absorb provides patients with acute and early term outcomes equivalent to contemporary DES to treat their CAD. In addition to best in class safety and effectiveness, Absorb leaves nothing behind but a healthier vessel. Vessels treated with Absorb will be able to respond and function without the constraint of a permanent metallic implant. Since there is no longer a structure which mechanically restrains the vessel, natural vascular response to physiological stimuli is possible.

Many step-wise clinical trials were already successfully finished and ongoing new trials and

addition extended follow-up are on the way. Especially, several trials, including ABSORB Japan, ABSORB Ⅱ, ABSORB Ⅲ and Ⅳ, are focused on capturing the unique features associated with Absorb treatment through both invasive and non-invasive imaging techniques such as: Angiography, intravascular ultrasound (IVUS), optical Coherence Tomography (OCT), Multi-slice spiral computed tomography (MSCT). Besides the improved long-term clinical outcomes, the favorable vascular healing has been reported. The results of many IVUS and OCT follow-up studies are reported now, including complete absorption of scaffold system. As for the physiology studies of BVS, few data exist.

In this session, the presenter would like to summarize the imaging and physiology studies regarding BVS, mainly focusing follow-up imaging studies.