

Henry Ford Health

## Henry Ford Health Scholarly Commons

---

Cardiology Meeting Abstracts

Cardiology/Cardiovascular Research

---

3-8-2022

### **'ORBITAL-TRIPSY' - NOVEL COMBINATION OF ORBITAL ATHERECTOMY AND INTRAVASCULAR LITHOTRIPSY IN CALCIFIED CORONARY DISEASE**

Chi Shing Michael Chiang

Follow this and additional works at: [https://scholarlycommons.henryford.com/cardiology\\_mtgabstracts](https://scholarlycommons.henryford.com/cardiology_mtgabstracts)

---

☆ **Complex Clinical Cases**

**‘ORBITAL-TRIPSY’ - NOVEL COMBINATION OF ORBITAL ATHERECTOMY AND INTRAVASCULAR LITHOTRIPSY IN CALCIFIED CORONARY DISEASE**

Poster Contributions

For exact presentation time, refer to the online ACC.22 Program Planner at <https://www.abstractsonline.com/pp8/#!/10461>

Session Title: Complex Clinical Cases: FIT Flatboard Poster Selections -- Interventional and Structural

Abstract Category: FIT: Interventional and Structural

Authors: *Chi Shing Michael Chiang, Henry Ford Hospital, Detroit, MI, USA, Queen Elizabeth Hospital, Hong Kong, Hong Kong*

**Background:** Calcified coronary lesions are notorious for posing technical difficulty during angioplasty. Here we report the Novo combination of Shockwave Lithotripsy after Orbital Atherectomy.

**Case:** An 81-year-old man was admitted for hemodynamically stable NSTEMI. He had a past medical history of AF, HT, DM, COPD, hepatitis B cirrhosis, and moderate-severe aortic stenosis. Coronary angiogram showed heavily calcified LM and TVD. He was stratified as a high risk CABG candidate. We proceeded high-risk PCI to RCA first

**Decision-making:** Optical coherence tomography (OCT) was performed to the RCA. At the minimal luminal area (MLA), there was circumferential thick calcification, with area of 1.55 mm<sup>2</sup>. IVL was performed but failed to open up the heavily calcified mid-RCA lesion. With absence of significant dissection from OCT, OA was performed at low and high-speed. The lesion at MLA was successfully cracked with luminal gain to 2.23 mm<sup>2</sup> from 1.55 mm<sup>2</sup>. However, the luminal size at the MLA was still quite small with reference to the vessel size, and the calcium remained very thick even after multiple atherectomies. Hence, IVL was performed again. After Orbital-Tripsy, very significant luminal gain was observed with angiogram and OCT . Ostial to mid-distal RCA was stented with 2 overlapping drug-eluting stents.

**Conclusion:** OA can effectively debulk calcium to facilitate further lesion cracking with IVL, which was demonstrated to be safe and synergistic to each other, attaining stepwise gain in luminal area

