

2019.JUN.22 - 23

TSCI CTO Weekend

Demo Sites

台北榮民總醫院
中國醫藥大學附設醫院
成功大學附設醫院

無實體會場
全程線上直播



TSCI CTO Weekend Welcome Message

2019 CTO Weekend 將於 6 月 22 日周末隆重登場!

由心臟介入性學會籌辦的 CTO Weekend 活動，係國內首次採取純網路手術直播而無實體會場的會議形式新嘗試，會議將分別於北中南三大醫學中心(臺北榮總、中國附醫、成大附醫)進行 21 台複雜 CTO 手術演示。

術者與評論專家幾乎完整網羅了目前國內老中青三代專注於 CTO 治療的介入專家，在第一日的活動中，也將同時與大陸廣州逆向 CTO 介入活動進行連線，相互討論。此外，於轉播期間，亦開放網友提問，增加與專家間的互動。因此在兩日的會議中，想必能激起璀璨的火花，精彩可期。

希望國內外有志於 CTO 介入治療的同好，能準時於 6 月 22 日、23 日踴躍上網參加觀看，讓 CTO Weekend 成為國內 CTO live demonstration 會議的最高殿堂。



TSCI 秘書長 暨 CTO Weekend Course Director

TSCI CTO Weekend

Date: 2019.6.22-23 08:00-17:00

Course Directors: 盧澤民、張詩聖、李政翰

6/22 Day 1. Demo Site: 台北榮總

Venue: 台北榮總會議室

08:00-08:10 Opening 殷偉賢理事長

08:10-11:00 Session I

Moderators: 盧澤民 張其任

Commentators: 劉俊廷 王怡智 林茂欣

IVUS commentators: 鄧欣一 林佳濱

Case 1 黃少嵩 (台北榮總)

Case 2 王志鴻 (花蓮慈濟)

Case 3 蔡政廷 (台北馬偕)

Lecture 陳冠群 Evidence and Experience of Ultra Lipid Lowering in Post-MI

11:00-14:00 Session II

Moderators: 謝宜璋 曹殿萍

Commentators: 黃啟宏 施俊明 葉仲軒

IVUS commentators: 鄧欣一 林佳濱

Case 4 任勗龍 (振興)

Case 5 張其任 (林口長庚)

Case 6 劉世奇 (輔大)

14:00-17:00 Session III

Moderators: 王志鴻 陳志成

Commentators: 宋思賢 陳鉞忠 陳俊吉

IVUS commentators: 鄧欣一 林佳濱

Case 7 王怡智 (台大)

Case 8 劉俊廷 (三總)

Case 9 許榮城 (亞東醫院)

Lecture 宋思賢 Tailor-Made Anti-Platelet Therapy for East Asian ACS-PCI patients

TSCI CTO Weekend

6/23 Day 2. Demo Site: 中國附醫、成大醫院

Venue: 台中金典酒店

08:00-11:00 Session I

Moderators: 殷偉賢 李文領

Commentators: 張詩聖 陳清埤 方慶章

IVUS commentators: 中國附醫: 張偉俊 陳科維

成大醫院: 林志展 廖智冠

Case 1 中國 蘇界守 (台中榮總)

Case 2 中國 蘇峻弘 (中山)

Case 3 成大 李政翰 (成大)

Case 4 成大 邱正安 (高醫)

11:00-14:00 Session II

Moderators: 吳炯仁 羅秉漢

Commentators: 張雲德 林俊彰 蔡翰林

IVUS commentators: 中國附醫: 張偉俊 陳科維

成大醫院: 林志展 廖智冠

Case 5 中國 王光德 (台東馬偕)

Case 6 中國 林俊呈 (嘉榮)

Case 7 成大 顧博明 (奇美)

Case 8 成大 鄭正一 (高長)

14:00-17:00 Session III

Moderators: 馬光遠 蔡政廷

Commentators: 盧澤民 朱俊源 蘇界守

IVUS commentators: 中國附醫: 張偉俊 陳科維

成大醫院: 林志展 廖智冠

Case 9 中國 盧炯睿 (中國)

Case 10 中國 曹承榮 (部豐)

Case 11 成大 郭風裕 (高榮)

Case 12 成大 黃成偉 (成大)

Lecture 蘇峻弘 Evidence and Experience of Ultra Lipid Lowering in Post-MI

17:00 Closing 盧澤民秘書長

6/22(Sat) Day 1

Demo Site: 台北榮民總醫院

北榮工作人員名單:

黃偉銘、周睿信、吳靜如、楊雅伶、陳素真、蔡依霖
蔡泉財、陳相堯、張皓智、蘇彥伯、盧雅雯、許燕輔
陳忠佑、鄭文馨、王若妍、李昇樺、陳碧治、張書裴
方若蓁、邱奕玲、張堉慈、倪偉中、陳彥樺、李儲華
葉貴美、劉明欽、薛建宏、郭宜蘭、陳中傑

Case 1 : Right coronary artery chronic total occlusion

Demo Site : 台北榮民總醫院

Operator : Dr. Shao-Sung Huang (黃少嵩)

Patient Demographics

Age : 82

Gender : Male

Past Medical History

1. Coronary artery disease, Left main and triple vessel disease diagnosed at 2018/9
2. NSTEMI at 2018/09/13, post LM to LAD revascularization by DES
3. Hypertension, under medical treatment
4. Chronic kidney disease, stage IIIa

Risk Factors

Age ; HTN ; CKD

Clinical Presentation

Effort related chest tightness

Angiographic Findings

Coronary vascular anatomy (2018/09/13)

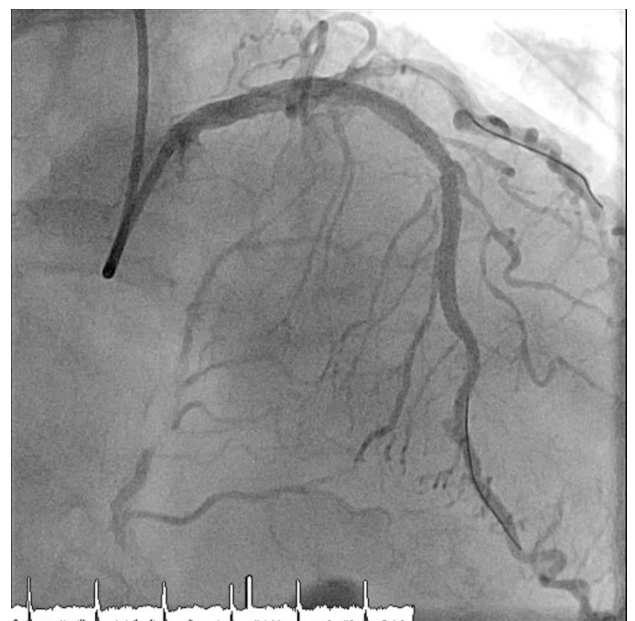
LM: distal 60 % stenosis

LAD: ostium to middle 75% stenosis

LCX: proximal 50% stenosis

RCA: proximal total occlusion

[Angiogram: after LM to LAD PCI]



• Most deliverable stent

PERSPECTIVE Study

Clinical Outcomes at 1 Year

PI: Dr. David Kandzar

Procedural, In-Hospital and Long-term Outcomes for **C**hronic **T**otal **O**ccclusion
Revascularization with the Resolute™ Zotarolimus-Eluting Stent



• 0.036"

Smallest stent crossing profile

• 0.021"

Lowest tip O.D.

FDA approve

Resolute Onyx™

CTO Indication

- Procedural Success: 92.3%
- Technical Success: 96.2%
- Clinically-driven **TLR: 1.1%**
- **Stent Thrombosis (ARC Def/Prob): 0.6%**
- A significant improvement in quality of life

Medtronic
Further. Together

Case 2 : Left anterior descending artery and left circumflex artery chronic total occlusion

Demo Site : 台北榮民總醫院

Operator : Dr. Ji-Hung Wang (王志鴻)

Patient Demographics

Age : 50

Gender : Male

Past Medical History

1. Coronary artery disease, Left main and double vessel CTO disease diagnosed at 2019/5
2. Heart failure with reduced EF, LVEF 17% with global wall hypokinesia
3. Type 2 DM under OHA (HbA1C 8.9%)
4. Hypertension, under medical treatment

Risk Factors

Previous smoker ; HTN ; DM ; Age

Clinical Presentation

Effort related chest tightness

Angiographic Findings

Coronary vascular anatomy (2019/05/27, before LM PCI)

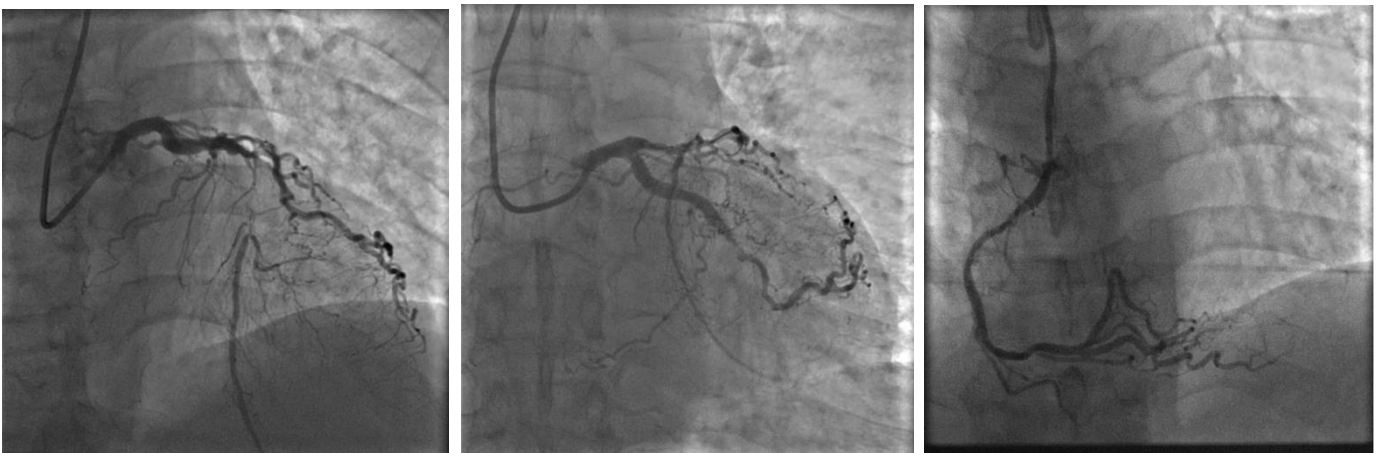
LM: 80% stenosis

LAD: middle total occlusion with ipsilateral collateral flow

LCX: middle total occlusion with collateral flow from RCA

RCA: proximal to middle diffuse arteriosclerosis up to 60 %

[angiogram: after LM DES implantation]



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Case 3: Left anterior descending artery chronic total occlusion

Demo Site : 台北榮民總醫院

Operator : Dr. Cheng-Ting Tsai (蔡政廷)

Patient Demographics

Age : 58

Gender : Male

Past Medical History

1. NSTEMI , Coronary artery disease with left main and triple vessel disease post LCX and RCA DES revascularization on 2019/05/22
2. Heart failure, NYHA Fc II
3. HTN under medication
4. Hyperlipidemia

Risk Factors

Age, hyperlipidemia, HTN

Clinical Presentation

Effort related angina and dyspnea on exertion

Angiographic Findings

Coronary vascular anatomy (2019/05/20)

LM: distal 50% stenosis

LAD: proximal dissection flap and CTO with collateral channel derived from RCA conus branch

LCX: distal: chronic total occlusion with ipsilateral collateral channel

RCA: middle total occlusion with collateral channel from RV branch

[angiogram: after LCX and RCA PCI]

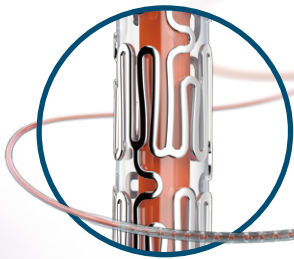
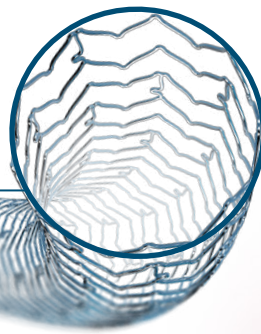


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亞培賽恩斯高艾諾莉美斯冠狀動脈塗藥支架系統
廣告許可字號：北市衛器廣字第 108040328 號
許可證字號：衛部醫器輸字第 031533 號
TW CP0129-EN 03/19

Case 4 : Right coronary artery ostium chronic total occlusion

Demo Site : 台北榮民總醫院

Operator : Dr. Hsu-Lung Jen (任勗龍)

Patient Demographics

Age : 69

Gender : Male

Past Medical History

1. Coronary artery disease with triple vessel disease
2. Type 2 DM under medication
3. Hypertension under medication
4. Hyperlipidemia

Risk Factors

Age, DM, HTN, Hyperlipidemia

Clinical Presentation

Chest tightness for months

Angiographic Findings

Coronary vascular anatomy (2018/09/13)

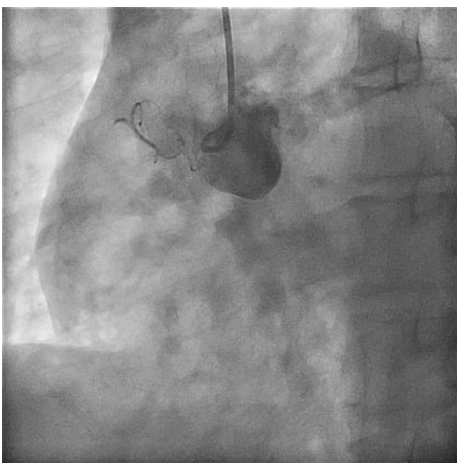
LM: patent

LAD: proximal and middle 60% stenosis with calcification, distal 80% stenosis

LCX: middle 50 % stenosis

RCA: ostium total occlusion with collateral flow from LCX and LAD

[Angiogram: RCA ostium CTO]



Case 5 : Right coronary artery chronic total occlusion

Demo Site : 台北榮民總醫院

Operator : Dr. Chi-Jen Chang (張其任)

Patient Demographics

Age : 87

Gender : Male

Past Medical History

1. Coronary artery disease with double vessel disease, post LAD revascularization on 2019/04/09
2. Type 2 DM under OHA tx
3. Benign prostatic hyperplasia status post transurethral resection of the prostate in 2004

Risk Factors

Age, DM , ex-smoker (0.5 pack per day for 25 years, quit for 20 years)

Clinical Presentation

Effort related angina

Imaging Findings

Coronary vascular anatomy (2019/04/09)

LM : patent

LAD : middle 90% stenosis with calcification, -D1 ostium: 90% stenosis

LCx : luminal irregularity

RCA: middle total occlusion with collaterals from LAD

[angiogram: after LAD revascularization]



Case 6: Right coronary artery chronic total occlusion

Demo Site : 台北榮民總醫院

Operator : Dr. Shih-Chi Liu (劉世奇)

Patient Demographics

Age : 60

Gender : Male

Past Medical History

1. Coronary artery disease with double vessel disease, post chronic total occlusion percutaneous coronary intervention at left anterior descending artery with one drug-eluting stent on 2017/09/21 failed RCA chronic total occlusion intervention at 2018/1/22
2. Ischemic stroke over right lower pons to right medulla oblongata in 2014/09
3. Type 2 DM under OHA
4. Hypertension under medication
5. Hyperlipidemia
6. Gouty arthritis

Risk Factors

Age, DM, HTN, Hyperlipidemia

Clinical Presentation

Chest tightness intermittently

Imaging Findings

Coronary vascular anatomy (2018/01/22)

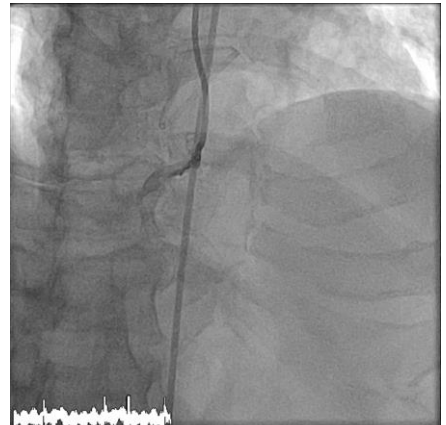
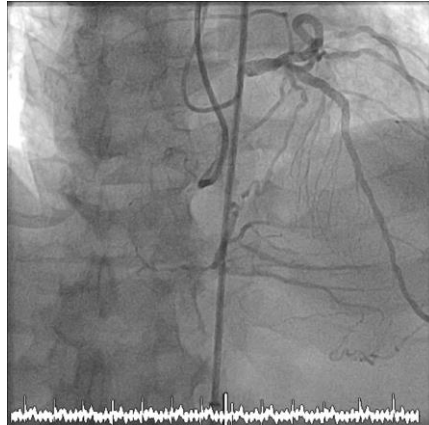
LM : patent

LAD : proximal to middle instent patent

LCx : luminal irregularity

RCA: proximal total occlusion with collaterals from LAD and LCX

[angiogram: previous RCA CTO PCI]





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Case 7 : Right coronary artery chronic total occlusion

Demo Site : 台北榮民總醫院

Operator : Dr. Yi-Chih Wang (王怡智)

Patient Demographics

Age : 77

Gender : Male

Past Medical History

1. Coronary artery disease with double vessel disease
failed LAD CTO PCI at 2019/3/13
post RCA critical lesion revascularization at 2019/4/2
2. Hypertension under medication

Risk Factors

Age, HTN

Clinical Presentation

Typical angina symptom for months

Angiographic Findings

Coronary vascular anatomy (2019/03/13, before RCA PCI)

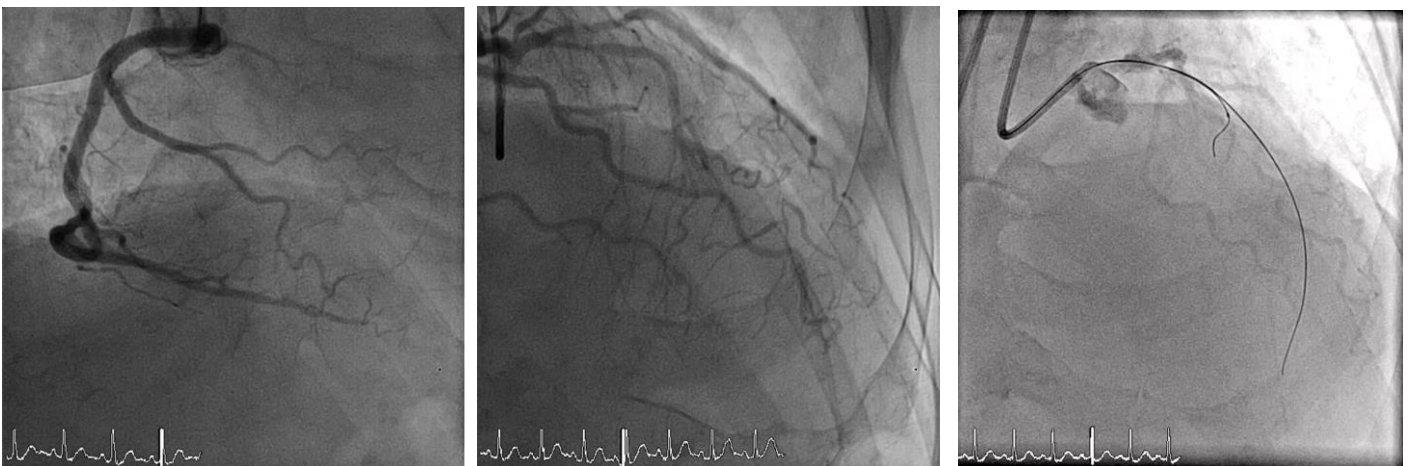
LM: patent

LAD: proximal 80% stenosis, middle total occlusion with ipsilateral collateral and RCA collateral flow

LCX: patent

RCA: proximal 80% stenosis

[angiogram: after RCA and LAD PCI]



Case 8 : Right coronary artery chronic total occlusion

Demo Site : 台北榮民總醫院

Operator : Dr. Jun-Ting Liou (劉俊廷)

Patient Demographics

Age : 56

Gender : Male

Past Medical History

3. NSTEMI at 2019/5, post LAD, diagonal-2 and LCX artery revascularization by DES

4. Ischemic cardiomyopathy (LVEF 35%)

5. Hypertension under medication

Risk Factors

Age, Smoking (1 PPD > 40 years), HTN,

Clinical Presentation

Chest tightness for months

Angiographic Findings

Coronary vascular anatomy (2019/05/09, before LAD & LCX PCI)

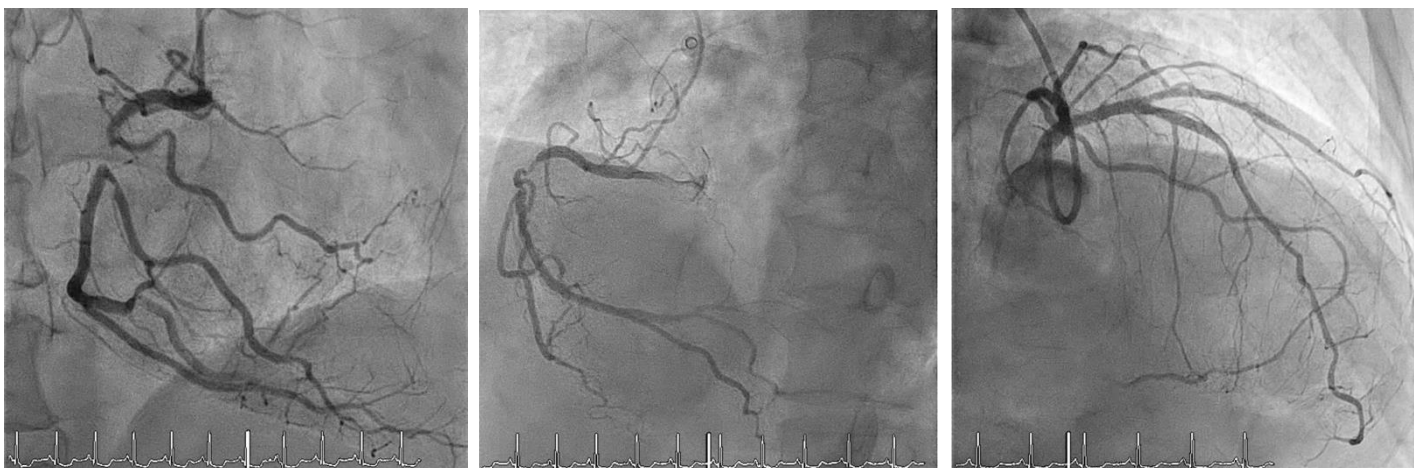
LM: patent

LAD: proximal long segment stenosis up to 99% and major D2 branch ostium 90% stenosis

LCX: middle total occlusion with collateral flow from OM

RCA: middle total occlusion with ipsilateral collateral flow from RV branch

[angiogram: after LAD,D2 and LCX PCI]

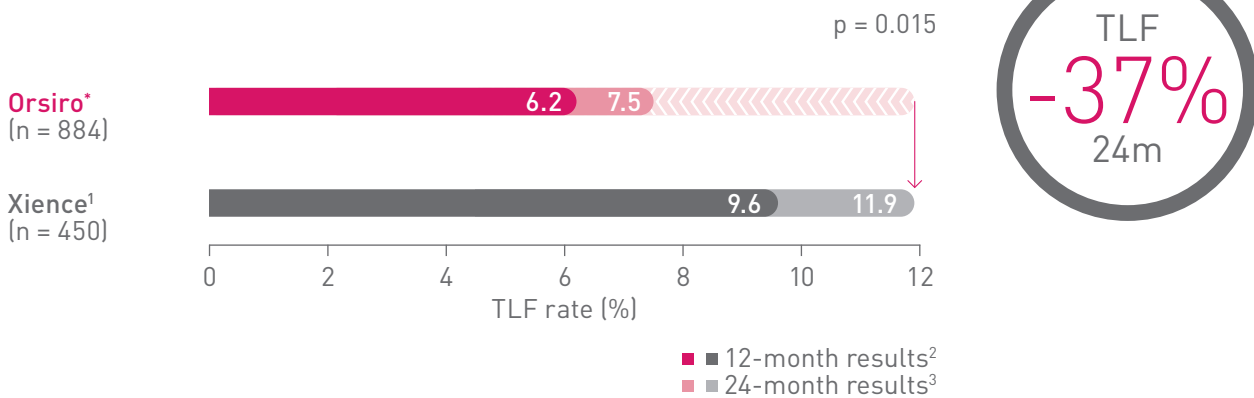


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Ultrathin struts.
Superior patient outcomes.

BIOFLOW-V: Two-year results of an FDA pivotal trial

Further Outperforms Xience with BIOFLOW-V Two-Year Results



For complete clinical study results visit: www.orsiro.com

* CAUTION - Investigational device. Limited by United States law to investigational use; 1. Xience is a trademark of Abbott Cardiovascular Systems Inc.; 2. Kandzari D, et al. BIOFLOW-V: A Prospective Randomized Multicenter Study to Assess the SaFety and Effectiveness of the Orsiro SiroLimus Eluting Coronary Stent System in the Treatment Of Subjects With up to Three De Novo or Restenotic Coronary Artery Lesions Science. Presentation at ESC 2017; 3. Kandzari D, et al. BIOFLOW-V: Two-Year Results of a Randomized Trial Evaluating an Ultra-Thin Strut Bioresorbable Polymer-Based Drug-Eluting Stent. Presentation at TCT 2018.

Case 9 : Right coronary chronic total occlusion

Demo Site : 台北榮民總醫院

Operator : Dr. Jung-Cheng Hsu (許榮城)

Patient Demographics

Age : 79

Gender : Male

Past Medical History

1. Coronary artery disease, triple-vessel disease, post LAD and LCX revascularization on 2012/03
post LAD ISR revascularization by DES at 2019/06/09
2. End stage renal disease under hemodialysis since 2012/02
3. Left iliac artery CTO and right common iliac artery critical stenosis, post PTA with left iliac a. stenting and right common iliac a. balloon angioplasty
4. Old cerebral ischemic stroke at 2012
5. Vitreous hemorrhage and cataract status treatment in 2008
6. Type 2 DM under insulin treatment
7. Hypertension under medication
8. Hyperlipidemia

Risk Factors

Age, HTN, DM, ESRD, Hyperlipidemia

Clinical Presentation

Effort related angina and dyspnea on exertion

Angiographic Findings

Coronary vascular anatomy (2019/06/09, before LAD PCI)

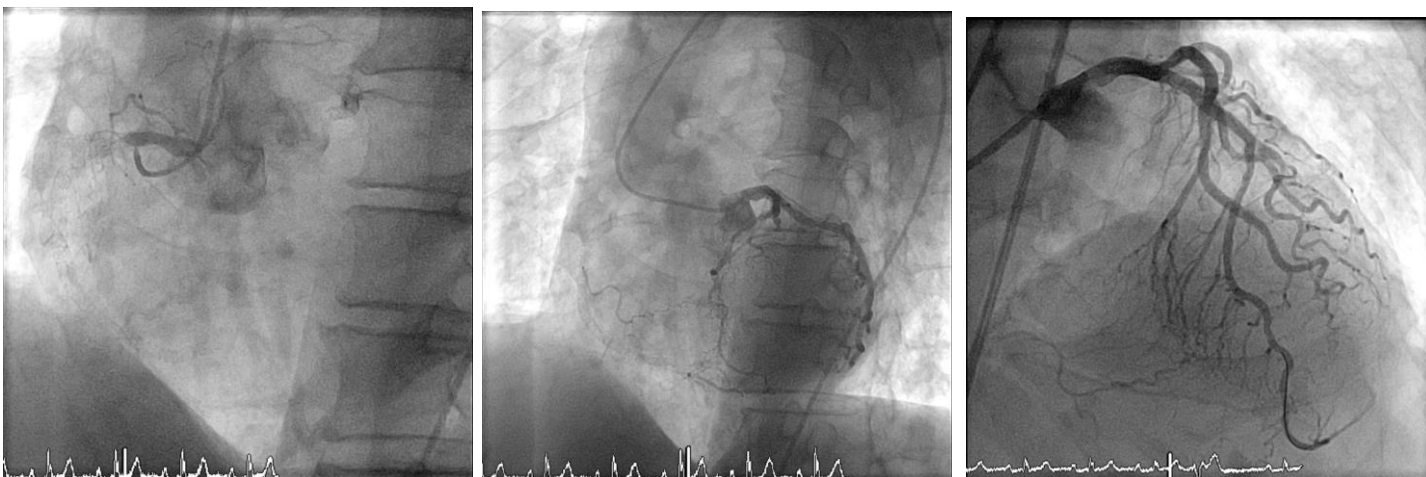
LM: patent

LAD: proximal 70% stenosis near previous stent

LCX: proximal short segment tubular stenosis up to 80%, distal in-stent: patent

RCA: proximal in-stent total occlusion with collateral flow from LAD

[angiogram: RCA instent CTO]



6/23(Sun) Day 2

Demo Sites: 中國附醫 成大醫院

中國附醫工作人員名單:

張詩聖、李庚原、張佑誠、廖浚宏、陳建勛、黃聖梵
盧炯睿、林育楷、呂尚謁、郭哲璋、魏榮廷、陳科維
蕭好孜、王茗冠、王莉蓉、王昱荃、陳彥霖

成大醫院工作人員名單:

林志展、李政翰、李文煌、黃成偉、陳柏偉、黃鼎鈞
柯呈諭、盧威達、蘇貞元、陳則璋、廖 瑀、吳宇豪
王亦聖、侯琇云、歐忻斐、劉晉佑、朱以恬、徐韻涵
周彩琳、郭怡伶、陳慧謙

Case 1 : LAD CTO

Demo Site : 中國附醫

Operator : Dr. Chieh-Shou Su (蘇界守)

Patient Demographics

Age : 49

Gender : Male

Past Medical History

1. 2018/11: ACS, 2V CAD s/p PCI(DES) to RCA
2. 2019/04 PCI to LAD CTO, failed

Lab data

Cr: 1.44, eGFR: 52; LVEF: 48%

Risk Factors

T2DM, HTN, Dyslipidemia

Clinical Presentation

Effort angina (CCS class II)

Angiographic Findings

Coronary vascular anatomy

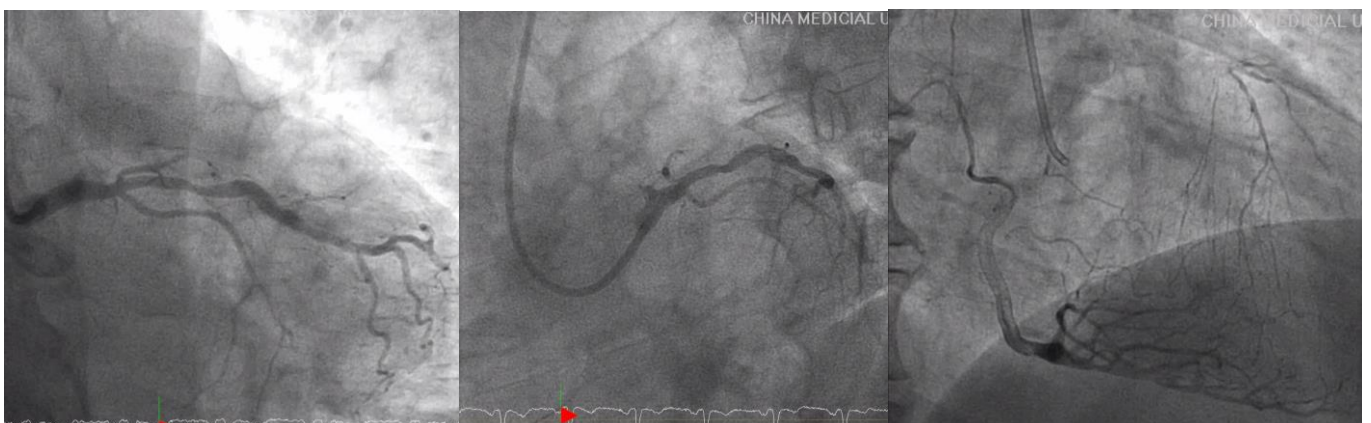
LM: Patent

LAD: CTO from ostium

LCX: Small caliber with big OM and proximal 50% stenosis

RCA: Patent middle to distal stent

Collateral-From RCA/LCX to distal LAD



Case 2 : Left Circumflex Artery Chronic Total Occlusion

Demo Site : 中國附醫

Operators : Dr. Chun-Hung Su (蘇峻弘) ; Kai-Wei Chang (張凱為)

Patient Demographics

Age : 43

Gender : Female

Past Medical History

1. Coronary artery disease, triple-vessel-disease, status post percutaneous coronary intervention with drug-eluting stents to left anterior descending artery on 2019/05/14
2. Congestive heart failure, ischemic cardiomyopathy (LVEF: 33%)
3. Paroxysmal atrial fibrillation
4. Type 2 diabetes mellitus (newly diagnosed) with nephropathy; chronic kidney disease, stage IV

Risk Factors

Type 2 diabetes mellitus, dyslipidemia

Clinical Presentation

Effort angina (CCS class III); exertional dyspnea; peripheral edema

Angiographic Findings

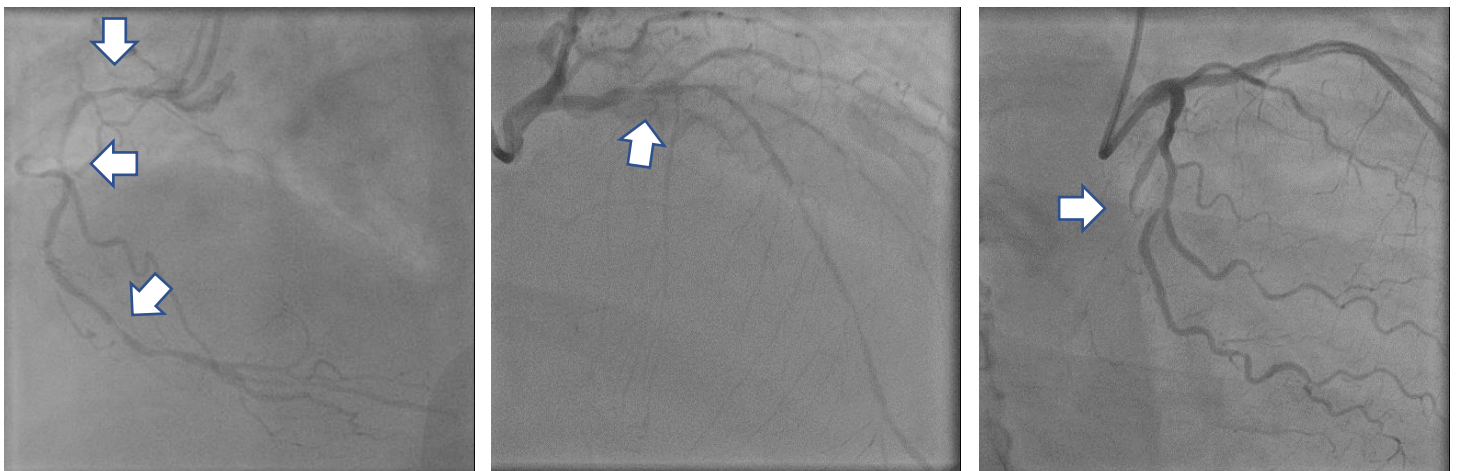
Coronary vascular anatomy (2019/05/14)

LM: Patent

LAD: P-M LAD tandem lesions up to 80%, D-LAD: 75% stenosis, D2 branch: 95% stenosis

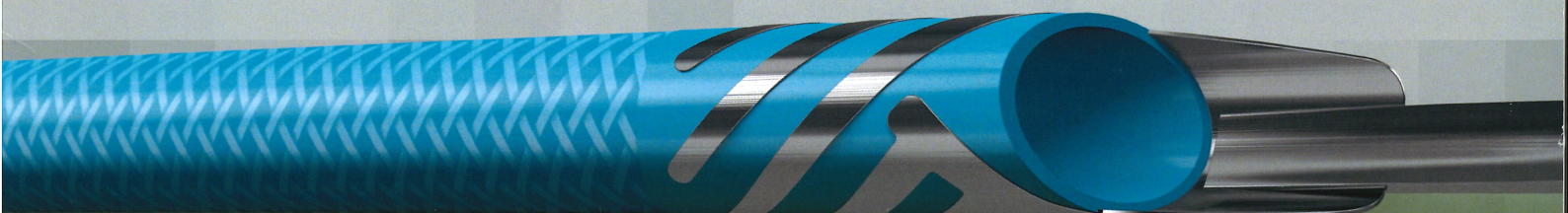
LCX: D-LCX: chronic total occlusion (TIMI 1 collateral flow from LAD-septal and LCX-OM branch)

RCA: P-M RCA 80% stenosis, D-RCA: 90% stenosis, PL branch: 90% stenosis



GUIDEZILLA™ II

Guide Extension Catheter



General Specifications

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| Indication: | The GUIDEZILLA II Guide Extension Catheter is intended to be used in conjunction with guide catheters to access discrete regions of the coronary and/or peripheral vasculature, and to facilitate placement of interventional devices. |
| Available Sizes: | 6F, 7F, 8F, and 6F Long* |
| Coating: | Z-Glide™ hydrophilic coating on distal guide segment |
| Distal Guide Length: | 6F*, 7F*, 8F* = 25 cm 6F Long* = 40 cm |
| Proximal Shaft: | Stainless steel hypotube |
| Collar Type: | Platinum iridium collar embedded in polymer |

*6F = 2 mm, 7F = 2.33 mm, 8F = 2.67 mm

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Case 3: CAD/ TVD, LAD CTO

Demo Site : 成大醫院

Operators: Drs. Cheng-Han Lee (李政翰), Cheng-Yu Ko (柯呈諭)

Patient Demographics

Age : 65 y/o

Gender : female

Past Medical History

CAD post failed PCI for LAD CTO

Risk Factors

Diabetes mellitus, hypertension

Clinical Presentation

Effort-related chest tightness

Angiographic Findings

- CAD/ TVD
 - LAD: CTO since pLAD
 - LCX: near total occlusion at dLCA
 - RCA: 50% stenosis at pRCA,
 - Collateral: RCA to ALD, faint
- Target lesion: LAD CTO



Case 4: CAD/LM+3VD, RCA-CTO

Demo Site : 成大醫院

Operators: Drs. Jeng-An Chiou (邱正安); Wen-Huang Li (李文煌)

Patient Demographics

Age : 69

Gender : Male

Past Medical History

1. Congestive heart failure with reduced ejection fraction
2. NSTEMI/ coronary artery disease LM + 2VD (RCA CTO) s/p DES*2 at LAD on 2019/2/26

Risk Factors

Type 2 diabetes mellitus

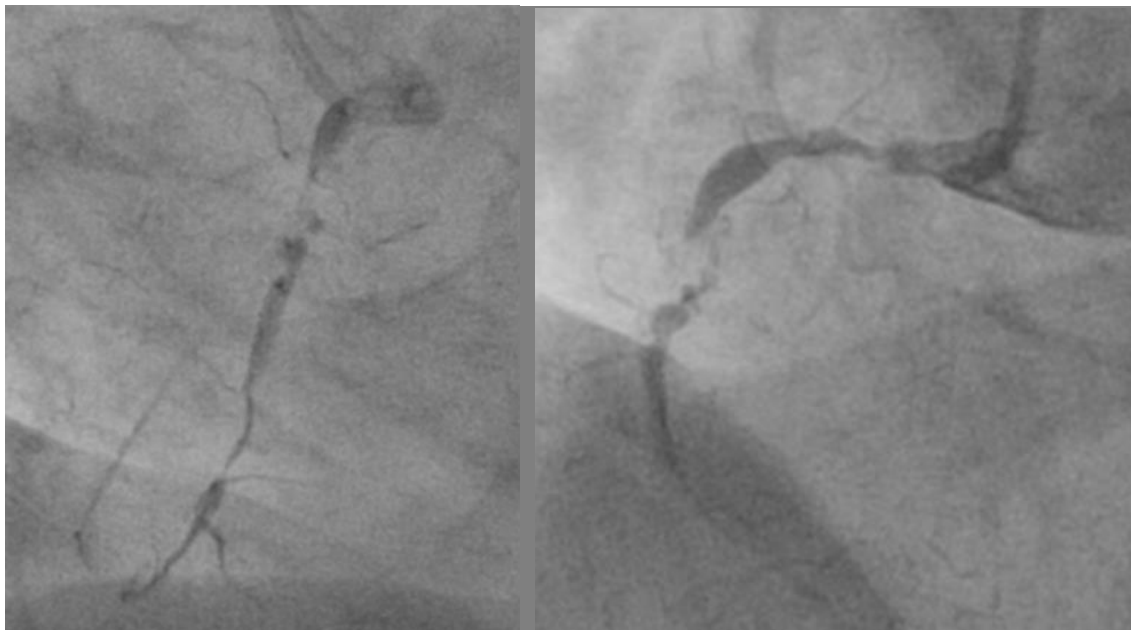
Dyslipidemia

Smoker

Clinical Presentation

- Shortness of breath for hours.
- NSTEMI, acute decompensated heart failure with acute pulmonary edema, and cardiogenic shock were diagnosed during last admission.
- PCI for LM-LAD was done.
- Target lesion this time: RCA CTO

Angiographic Findings



Case 5 : LAD CTO

Demo Site : 中國附醫

Operator : Dr. Kuang-Te Wang (王光德)

Patient Demographics

Age : 62

Gender : Male

Past Medical History

1. 2019/05: NSTEMI, 3V CAD s/p PCI with 2.5/24mm Synergy DES at PDA, 3.5/48mm Synergy DES at mRCA; 2.25/32mm, 3.0/28mm Synergy DES at LCX
2. Coronary artery disease in MK 100 s/p BMS to p-LAD with loss f/u

Lab data

Cr: 0.77, eGFR: 102; LVEF: 33%

Risk Factors

T2DM, HTN, Dyslipidemia

Angiographic Findings

Coronary vascular anatomy

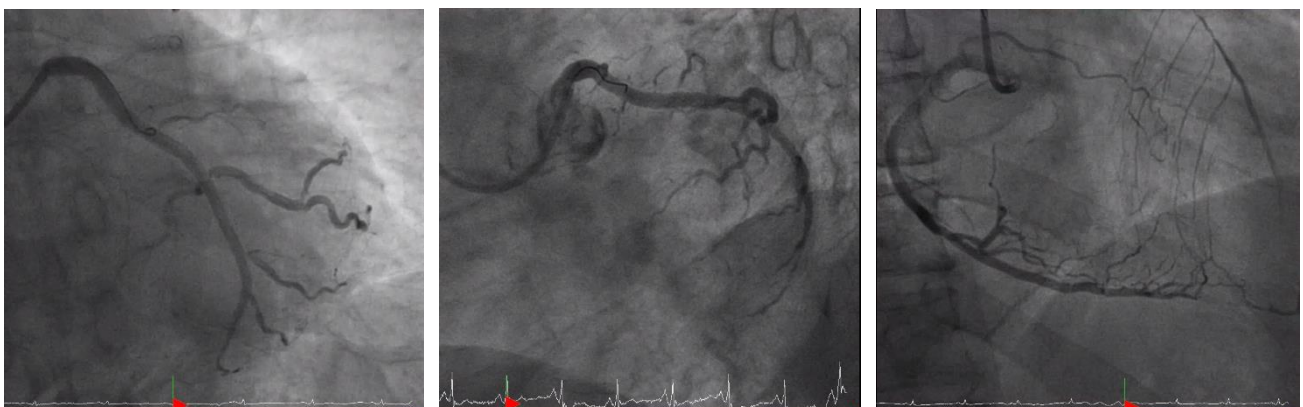
LM: Patent

LAD: Occlusive ISR since LAD ostium

LCX: S/p stent from proximal to distal LCX

RCA: S/p stent to p-m RCA and PDA

Collateral: From RCA to LAD



Case 6 : LCX CTO

Demo Site : 中國附醫

Operator : Dr. Jiunn-Cherng Lin (林俊呈)

Patient Demographics

Age : 47; Gender : Female

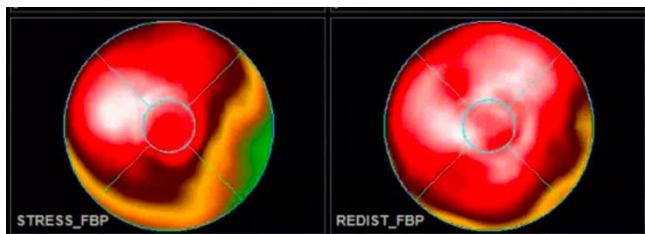
Past Medical History

1. 2008: 3V CAD s/p CABG
2. 2019/05: ACS, s/p PCI(BMS) to LAD

Lab data

Cr: 0.79, eGFR: 78; LVEF: 53%

Th201 MPI



Risk Factors

T2DM, HTN, Dyslipidemia

Angiographic Findings

LM: shaft 20% stenosis

LAD: S/p BMS to pLAD; bypass with LIMA to distal LAD

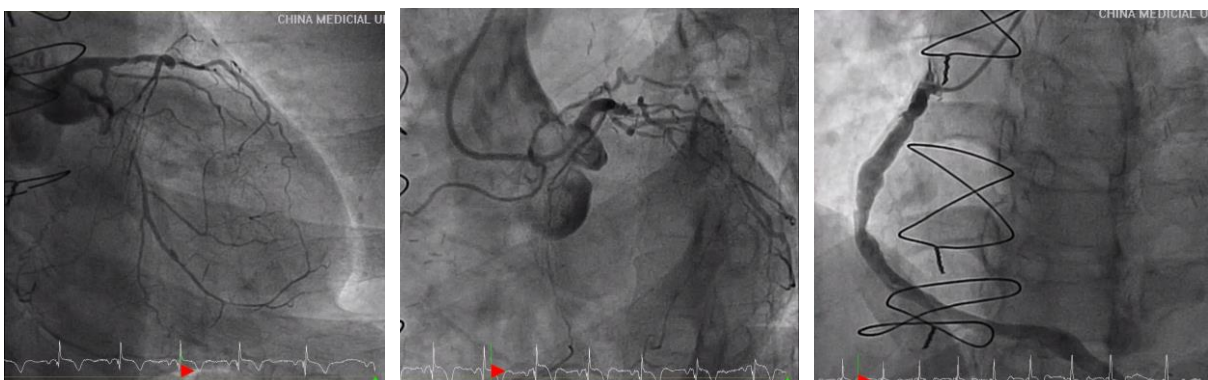
LCX: pLCX CTO, with pLCX self-collateral and septal branch of distal LAD

RCA: pRCA CTO with bypass diffuse atherosclerosis and proximal bypass 30-40% stenosis (bypass since ascending aorta to distal RCA)

Ramus: diffuse 40-50% stenosis

Collateral: pLCX self-collateral and septal branch of dLAD collateral to dLCX

Graft: patent but small LIMA-LAD and SVG-PDA



Resolute Onyx™

Zotarolimus-Eluting Coronary Stent System

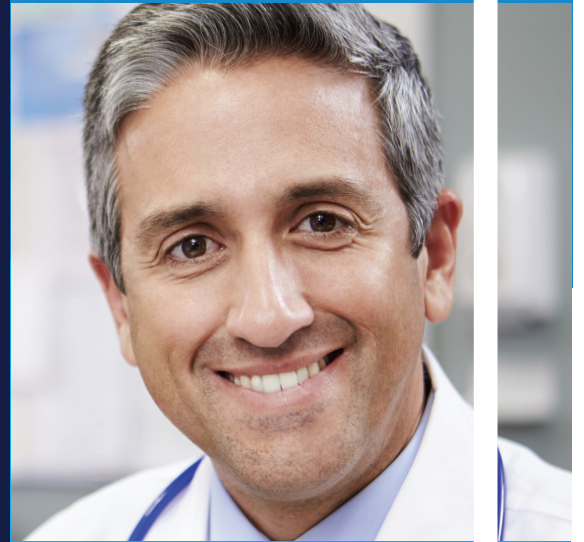
2.0-mm

CLINICAL STUDY:

0% ST

2% TLR

AT 1 YEAR^{1,2}



**MORE
TREATMENT
OPTIONS:**

**2.0-mm
DES WITH
3.25-mm
MSID³**



¹ Price MJ et al. First report of the Resolute Onyx™ 2.0-mm zotarolimus-eluting stent for the treatment of coronary lesions with very small reference vessel diameter. JACC: Cardiovascular Interventions. 2017;10(14):1381-1388.

² Study is not powered for the ST endpoint.

³ The Resolute Onyx™ stents should not be expanded to a diameter beyond the maximum labeled diameter listed on the label per the IFU. Do not dilate the 2.0-mm stents to greater than 3.25 mm. Post dilation required for overexpansion.

Case 7: CAD/ TVD, RCA CTO

Demo Site : 成大醫院

Operators: Drs. Po-Ming Ku (顧博明); Po-Wei Chen (陳柏偉)

Patient Demographics

Age: 67

Gender: Male

Past Medical History

2000 CAD triple vessel disease post PCI for RCA, ISR with total occlusion diagnosed in 2013
Hypertension, diabetes mellitus, dyslipidemia

Risk Factors

Type 2 diabetes mellitus, Hypertension, Smoking

Clinical Presentation

- Progressive exercise intolerance, positive stress test (treadmill test)
- 2019/03/14 Coronary angiography:
 - RCA: post stenting at proximal RCA with ostium covered, ISR with total occlusion
 - LCA: critical lesion at LM bifurcation, good collaterals to proximal RCA stent.
- 2019/05/16 Percutaneous coronary intervention for LM bifurcation (DK crush technique)
- Target lesion: RCA CTO

Angiographic Findings



Case 8: CAD/ 3VD, LAD CTO

Demo Site : 成大醫院

Operators : Drs. Cheng-I Cheng (鄭正一), Hsiu-Yu Fang (方修御)

Patient Demographics

Age : 49

Gender : Male

Past Medical History

2019/03/01 NSTEMI / CAD, 3VD, LAD CTO, s/p PCI with BMS x2 for LCX
HFrEF (LVEF: 37%), DM, HTN, hyperlipidemia

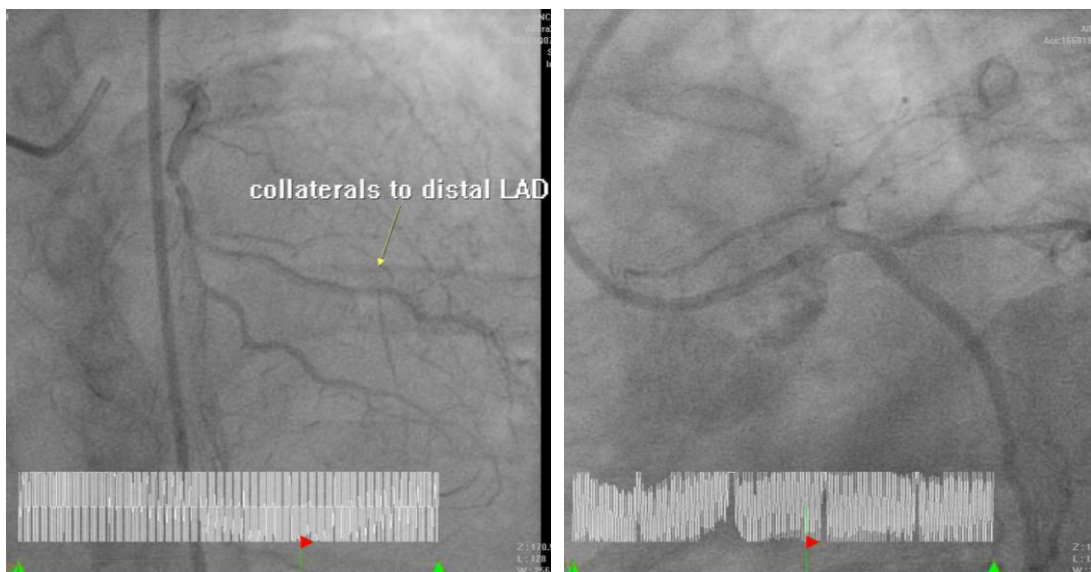
Risk Factors

Type 2 diabetes mellitus, Hypertension, hyperlipidemia, Smoking

Clinical Presentation

- 2019/03/01 chest pain and SOB for 2 days, NSTEMI, Killip III s/p tracheal intubation
- ECG: poor R-wave progression, precordial leads ST-T change
- Echocardiography: Anterior, Anteroseptal, Inferoseptal LV hypokinesis, LVEF: 37%
- 2019/03/01 PCI
 - Left Main: Atherosclerosis without significant stenosis
 - LAD: total occlusion since proximal without obvious stump, with autocolaterals to dLAD and diagonal branch
 - LCX: 75% stenosis at pLCX, 75% stenosis at dLCX; 80% stenosis at OM1
 - RCA: 90% stenosis at mRCA (small territory, left side dominant).
 - PCI for LAD: failed
 - PCI for LCX: Integrity stent (2.5/14mm), Integrity stent (4.0/15mm)
- Target lesion: LAD proximal CTO

Angiographic Findings



真正的優化 PCI 需要的是定位、定位、再定位！

OPTIS™ Integrated System 可精準提供所需資訊，使醫師做出更優化的決策、提高效率 and 手術有效性，尤其利於複雜病況患者的診治。

“應需而生——無縫整合”

此系統安裝於導管室，永遠保持開啟狀態且隨時可用，可節省設置時間，實現床邊控制 OCT 和 FFR，並且能夠再無菌區同步查看。

除直接近距離接觸提高工作效率外，OPTIS™ Integrated System 的隨需可用性還可優化 PCI 工作流程，不會額外耗費大量時間。

可通過以下特點優化手術：

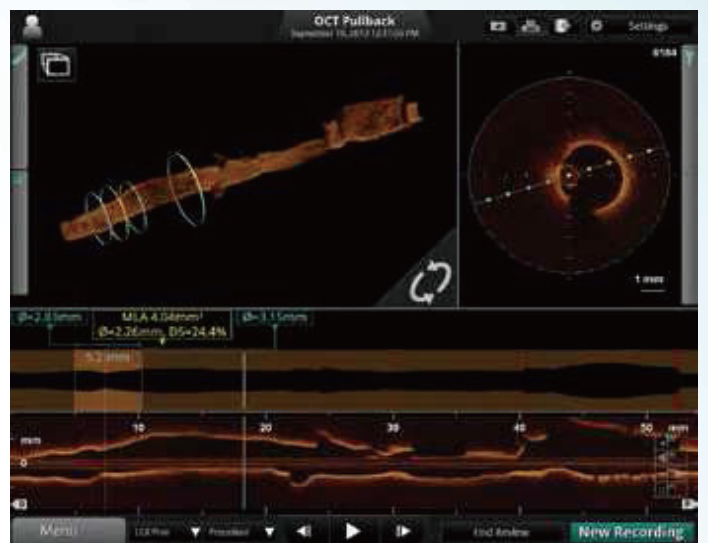
- 無線 FFR
- OCT 2-3 秒快速拉回(pull back)
- 快速處理圖像
- 同時截取血管造影和 OCT 圖像
- 同步融合血管造影 -OCT 圖像
- 無縫整合導管室 IT 系統



“見所欲見——3D 可視”

通過同步 OCT 3D 可視化技術獲得詳細的圖像。FFR 與 OCT 相結合，可為醫師提供 PCI 計畫和決策相關的資訊¹，包括：

- 病灶處定位和血管功能性評估
- 斑塊形態特徵^{2, 3}
- 病灶處準備
- 決定血管支架尺寸的選擇和置入方式的策略⁴
- 分叉血管病灶處支架置放最佳路徑⁴
- 血管支架置放和貼壁評估⁵
- 後擴張決策



美商亞培股份有限公司台灣分公司
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廣告許可字號：北市衛器廣字第 108010143 號
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雅培 歐普特整合系統
TW CP0128-TC 02/19

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Check the regulatory status of the device in areas where CE marking is not the regulation in force.

Abbott

Case 9 : Left Circumflex Coronary Artery Chronic Total Occlusion

Demo Site : 中國附醫

Operator : Dr. Chiung-Ray Lu (盧炯睿)

Patient Demographics

Age : 67

Gender : Male

Past Medical History

Coronary artery disease, triple-vessel-disease, status post percutaneous occlusive balloon angioplasty with drug-eluting stent to right coronary artery total occlusion on 2019/05/30

Risk Factors

Dyslipidemia

Clinical Presentation

Effort angina (CCS class II)

Angiographic Findings

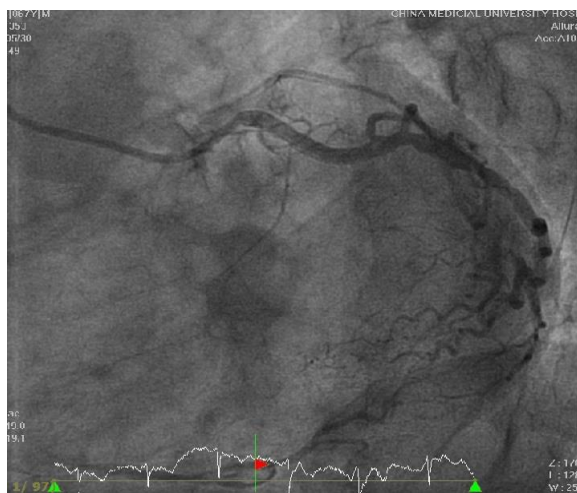
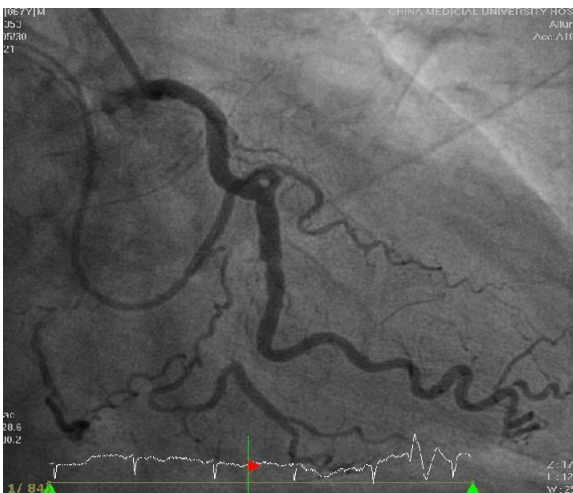
Coronary vascular anatomy (2019/05/30)

LM: Patent

LAD: middle 60% stenosis

LCX: Distal total occlusion with bridging collateral

RCA: proximal total occlusion, collateral from LCX



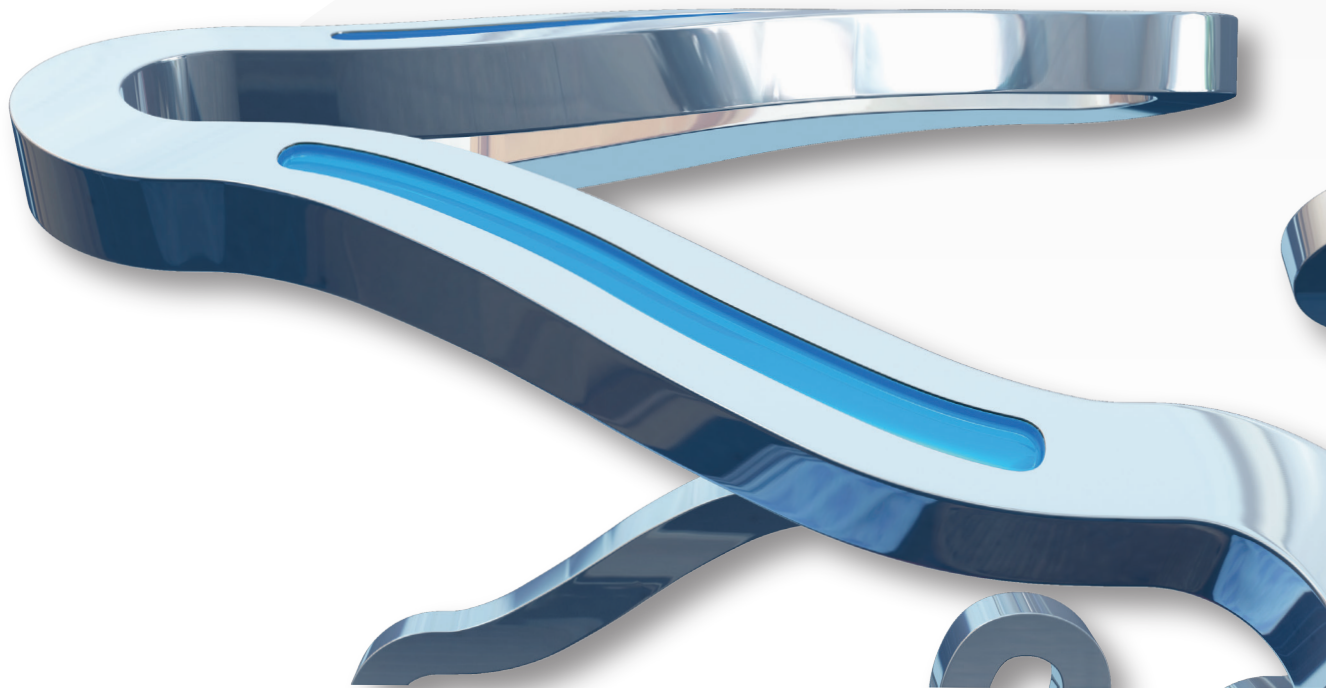


™

F I R E H A W K

Rapamycin Target Eluting Coronary Stent System

Real World Outcomes
Higher Safety & Efficacy
Less Drug Dosage



Case 10 : LCX CTO

Demo Site : 中國附醫

Operator : Dr. Chen-Rong Tsao (曹承榮)

Patient Demographics

Age : 54

Gender : Male

Past Medical History

1. 2018/04: STEMI s/p PPCI to RCA; staged PCI to LAD
2. 2019/03: Angina, S/p DES to LM/LAD and DCB for LAD ISR
3. 2019/06: Angina, PCI to LCX CTO, failed

Lab data

Cr: 1.16, eGFR: 66; LVEF: 59.6%

Risk Factors

T2DM, HTN, Dyslipidemia

Angiographic Findings

Coronary vascular anatomy

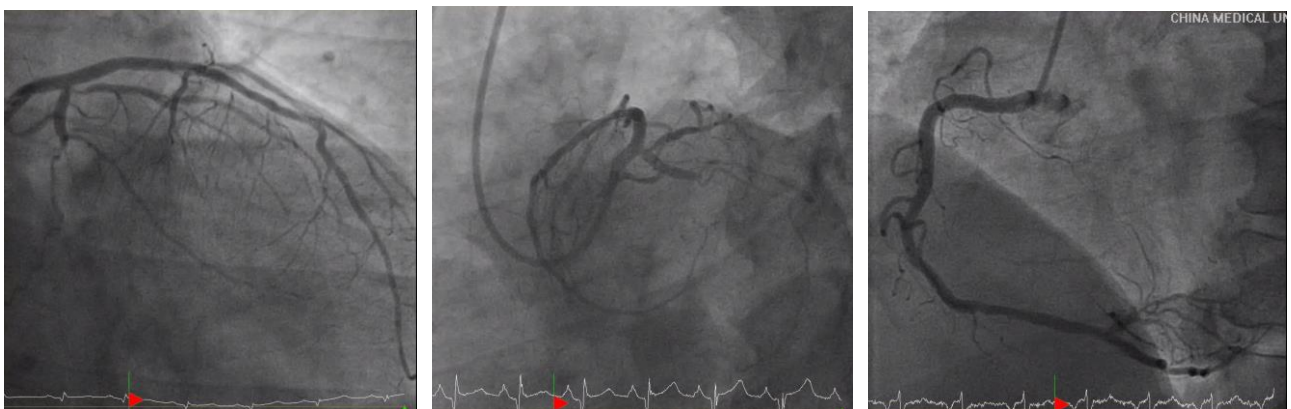
LM: s/p DES to LM/LAD

LAD: DES at LM/LAD, DCB for mid LAD ISR

LCX: mid. CTO

RCA: patent distal RCA stent

Collateral: From RCA to LCX



Case 11: CAD/3VD, LAD-CTO

Demo Site : 成大醫院

Operators: Drs. Feng-Yu Kuo (郭風裕); Ding-Jean Huang (黃鼎鈞)

Patient Demographics

Age : 66

Gender : Male

Past Medical History

Coronary artery disease-3VD post stenting, 2019/03 NSTEMI, dyslipidemia, paroxysmal supraventricular tachycardia post ablation

Risk Factors

Dyslipidemia

Ex-smoker

Clinical Presentation

- Intermittent resting chest tightness with cold sweating for one year.
- 2019/3/17 NSTEMI
 - Coronary angiography: CAD 3-V-D
 - LAD: post stenting at mLAD, CTO since p LAD.
 - LCX: 80-90% stenosis at pLCX
PCI for LCX done (BMS x1).
 - RCA: 40-50% stenosis at mRCA.
- Target lesion this time: LAD-CTO

Angiographic Findings

