

BARCELONA COMPLEX PCI WEEK

16th-18th March 2026

Introduction

On 16–18 March, OrbusNeich® successfully organized the Barcelona Complex PCI Week across three leading hospitals in Spain together with 4 leading physicians - Proctors: **Dr. Omar Abdul Jawad & Dr. Ander Regueiro** (Hospital Clínic Barcelona), **Dr. Luis Teruel** (Hospital Universitario de Bellvitge) and **Dr. Bernat Serra** (Hospital Universitario de Vall d'Hebron).

The Barcelona Complex PCI Workshop is a comprehensive educational program designed to equip participants with practical knowledge and hands-on insights into advanced techniques for treating complex coronary artery disease. The program places a strong emphasis on Chronic Total Occlusions (CTO) and intravascular ultrasound imaging (IVUS), delivered through live case demonstrations, structured case discussions, and expert-led reviews.



Objectives

Attendees will:

- Gain step-by-step exposure to CTO strategies, including antegrade/retrograde and advanced techniques.
- Improve procedural planning, decision-making, and complication management in complex PCI through IVUS utilization.
- Understand patient and lesion selection, device choice, and procedural optimization.
- Learn from real-world cases performed in high-volume reference centres, guided by experienced operators.
- Exchange clinical insights and best practices in an interactive and educational environment.

In total, four international participants - **Dr. Lu Yu Yu** (Taipei Veterans General Hospital, Taiwan), **Dr. Won Yoon Sun** (Gachon University Gil Medical Center, Korea), **Dr. Dusan Nikolic** (University Clinical Centre Kragujevac, Serbia), and **Dr. Mladen Tasic** (Institute for Cardiovascular Diseases Dedinje, Serbia); attended the workshop to acquire advanced Complex PCI and CTO skills for application in their daily clinical practice.

Overall, **six scheduled Complex PCI cases** were successfully performed, with positive feedback received from both proctors and participants. Beyond the operational excellence, it is highly rewarding to observe the tangible impact in terms of both brand positioning and clinical outcomes, as well as the strong engagement from participants and KOLs. Detailed case insights are presented on the following page to demonstrate the application of OrbusNeich products in complex cases.

Barcelona Complex PCI Week Hospital Clínic Barcelona – Day 1

16th March 2026

Case 1 – RCA CTO (ISR)

The first case is a chronic total occlusion (CTO) of the right coronary artery (RCA). A bilateral injection strategy was used to better visualize the distal vessel and collateral flow.

Dual access was established, with left radial access as the primary route and right femoral access for contralateral injection. An initial antegrade attempt was made. Teleport® Control 135 cm microcatheter provided good crossability and Xtenza® 6F GCE was then introduced to improve support. A Gaia Second guidewire was used first, followed by a Gladius wire in further attempts. Pre-dilatation was performed with a Sapphire® 3 (1.25 x 10 mm) balloon.



Due to the difficulty of the antegrade approach, the team switched to a retrograde strategy using a Teleport® Control (150 cm) microcatheter through septal collaterals. A trapping technique with a Sapphire® (1.0 x 8 mm) balloon was used to stabilize the system.

Another antegrade attempt was made using a Sasuke microcatheter (later found to be defective). Although unsuccessful, the aim was to improve guidewire direction toward the true lumen. The key turning point was the use of SonoScape IVUS. Guided by the TD-ADR technique, the team successfully re-entered the true lumen via the antegrade approach.

After recanalization, pre-dilatation was performed with a Sapphire® 3 (2.0 x 12 mm) balloon, followed by implantation of three COMBO® Plus DES (2.5 x 33 mm, 2.75 x 33 mm, and 3.0 x 33 mm). During distal stent delivery near the crux cordis branch, the Xtenza® 6F provided good support, visibility, and trackability, allowing precise stent placement. The procedure was completed with full revascularization.

The case ended with a good angiographic result, highlighting the importance of a stepwise approach, strong support, and the use of IVUS in complex CTO cases.

Teleport®
Microcatheter

SAPPHIRE® 3
Coronary Dilatation Catheter

SAPPHIRE® NC24
Coronary Dilatation Catheter

COMBO® PLUS
DUAL THERAPY STENT

Xtenza®
Guide Catheter Extension

scoreflex®
TRIO
Balloon Dilatation Catheter

SonoScape

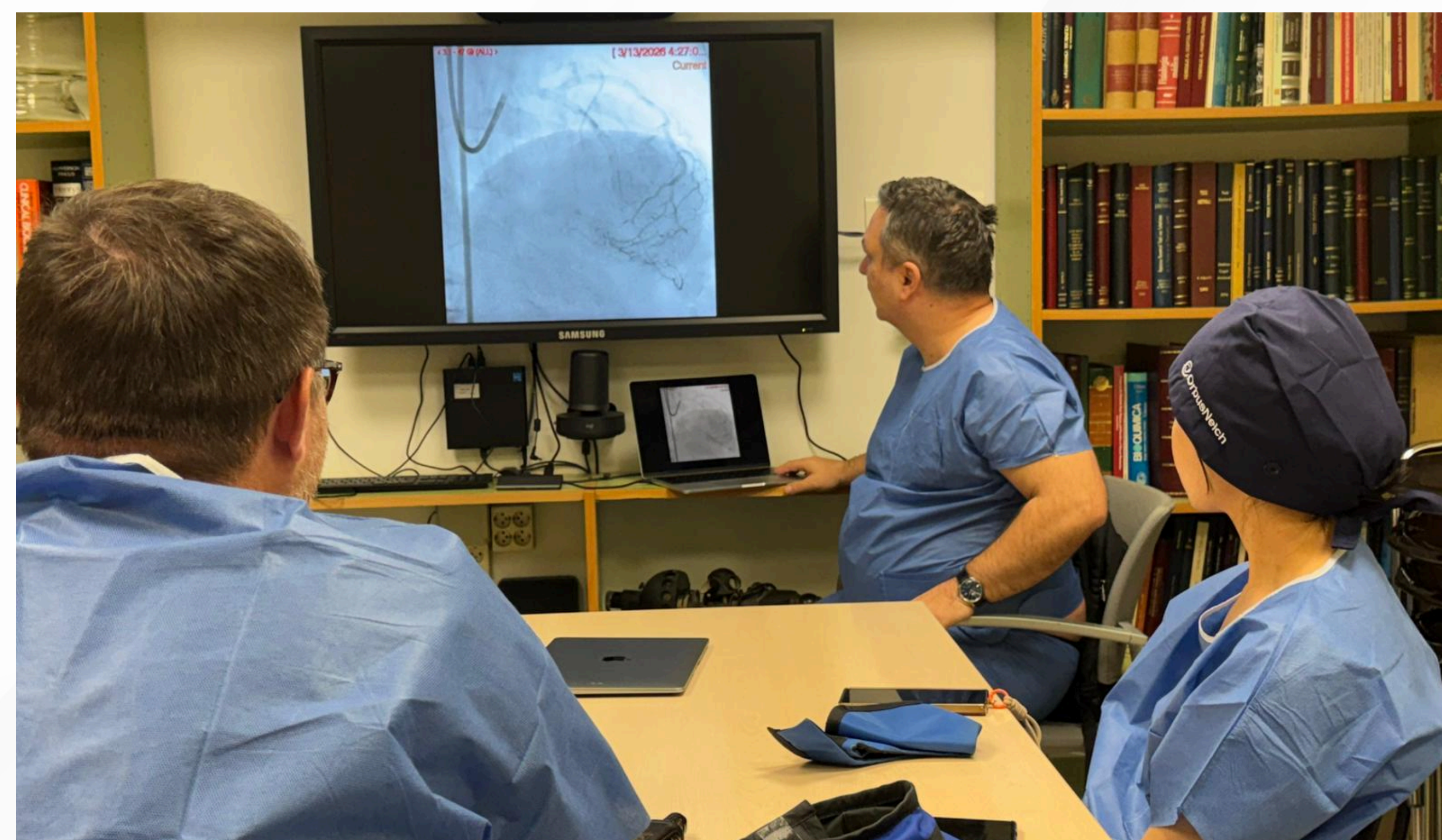
Barcelona Complex PCI Week Hospital Clínic Barcelona – Day 1

16th March 2026

Case 2 – LAD CTO

The second case is a CTO of the left anterior descending artery (LAD), approached with a planned antegrade strategy that allowed relatively straightforward crossing of the lesion.

A Sasuke dual lumen catheter was used for the antegrade attempt, enabling smooth guidewire advancement and successful crossing of the occlusion, quickly confirming access to the distal vessel.



Vessel preparation followed a stepwise sequence:

- Sapphire® NC24 (2.0 × 10 mm) balloon for initial pre-dilatation
- Scoreflex® TRIO (3.0 × 15 mm) for plaque modification and vessel preparation
- Sapphire® NC24 (3.0 × 10 mm) balloon to predilate the full vessel segment before stent implantation

Intravascular ultrasound imaging with SonoScapae IVUS system was then performed to confirm vessel size, optimize stent strategy, and ensure complete lesion coverage. Subsequently, sequential implantation of two COMBO® Plus DES was done:

- (2.5 × 33 mm) in the distal segment
- (3.5 × 23 mm) in the proximal segment

The final angiographic result was excellent, with good stent expansion, proper positioning, and restored coronary flow.

This case demonstrated the effectiveness of an antegrade approach and careful vessel preparation, combining NC balloons, scoring technology, and IVUS guidance to optimize outcomes.

Teleport®
Microcatheter

SAPPHIRE® 3
Coronary Dilatation Catheter

SAPPHIRE® NC24
Coronary Dilatation Catheter

COMBO® PLUS
DUAL THERAPY STENT

Xtenza®
Guide Catheter Extension

scoreflex®
TRIO
Balloon Dilatation Catheter

SonoScape

Barcelona Complex PCI Week Hospital Universitario de Bellvitge – Day 2

17th March 2026

Case 1 – RCA CTO (ISR)

The RCA CTO with ISR was approached through right femoral and radial for dual injection. A combined retrograde and antegrade approach were performed via Teleport® XT 150 cm through septal collaterals and antegrade via Teleport® XT 135 cm, using the tip-in technique. Retrograde wire (Hornet 14) successful re-entry into the antegrade system using a Reverse CART technique.

SonoScape IVUS is used to confirm intraluminal position and vessel structure. Sapphire® 3 (2.5 x 10 mm) was used as anchor balloon to improve system support, followed by pre-dilatation with Sapphire® 3 and Sapphire® NC24 (4.0 x 15 mm) for lesion optimization. The case ended with hybrid approach with DCB and eucaLimus™ DES (2.5 x 28 mm and 3.5 x 18 mm) implantation. Final outcomes show a successful recanalization with excellent angiographic result, guided by IVUS.



Case 2 – RCA CTO

The RCA CTO was approached through right femoral and radial for dual injection. A retrograde approach was performed via Teleport® XT 150 cm through septal collaterals. Lesion crossing retrogradely successfully. Subsequently, Teleport® XT 135 cm was advanced antegrade to perform the tip-in technique. Pre-dilatation with Sapphire® 3 (2.5 x 10 mm) was carried out, followed by eucaLimus™ DES (3.0 x 28 mm) implantation in the main segment. Distal lesion was ended with SUPPORT C™ DCB, optimizing the result while minimizing additional metal implantation. Result shows excellent angiographic outcome.

SAPPHIRE® 3
Coronary Dilatation Catheter

eucaLimus™
Coronary Stent System with Sirolimus Drug Coating

SonoScape

Teleport® XT
Microcatheter

SUPPORT C™
Paclitaxel Coated PTCA Catheter

SAPPHIRE® NC24
Coronary Dilatation Catheter

Barcelona Complex PCI Week

Hospital Universitario de Vall d'Hebron – Day 3

18th March 2026

Case 1 – RCA CTO

A retrograde strategy was initially considered; however, the procedure evolved favourably into a successful antegrade approach, using a 150 cm Teleport® microcatheter, which allowed effective lesion crossing. Once recanalization was achieved, vessel preparation was performed with pre-dilatation using Sapphire® 3 (2.0 x 15 mm) followed by Sapphire® NC24 (2.5 x 15 mm), optimizing expansion of the treated segment. The procedure ended with hybrid approach of DCB and eucaLimus™ DES (3.0 x 23 mm and 2.75 x 23 mm), ensuring full coverage of the diseased segment. The stent was post-dilatated using Sapphire® NC24 (2.5 x 15 mm) to ensure optimal stent expansion and apposition.

The final result was excellent from an angiographic standpoint, with optimal flow restoration and no complications.



Case 2 – RCA & LCx CTO

The RCA & LCx CTO was approached through right femoral and radial for dual injection. The 150 cm Teleport® microcatheter was used, facilitating GW support throughout the procedure. The (3.0 x 28 mm and 3.0 x 18 mm) overlapping eucaLimus™ stents were implanted in both LCx and RCA, respectively, achieving full coverage of the affected segments. The procedure was carried out efficiently, resulting in complete revascularization of both vessels with good final outcome.

SAPPHIRE® 3
Coronary Dilatation Catheter

SAPPHIRE® NC24
Coronary Dilatation Catheter

eucaLimus™
Coronary Stent System with Sirolimus Drug Coating

Teleport®
Microcatheter

SonoScape



In conclusion, all the CTO PCI cases done at Hospital Clínic Barcelona, Hospital Universitari de Bellvitge, Hospital Universitario de Vall d'Hebron were successfully completed, demonstrating the value of a hybrid approach integrating antegrade and retrograde techniques with intracoronary imaging. These cases highlight the importance of strategic planning, technical expertise, and collaborative execution in achieving optimal outcomes in complex coronary interventions.