The CERC Chronicle

Issue No. 18 – May 2021

CERC at EuroPCR 2021

CERC is a long-standing partner of EuroPCR. In this year of change, there was no way we were going to miss the event!

2 CERC trials will be presented:

EBC MAIN (read pg. 2), a late-breaking trial,

- **Wednesday, May 19, 10:20 – 10:40, Main Arena, « EBC MAIN – the European Bifurcation Club left main coronary bifurcation study"**
- but also via **a CERC interview with David Hildick-Smith, entitled « EBC Main: behind the curtain »**, available in the Videos On Demand section.

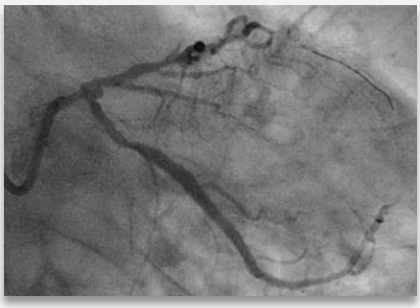
Electroducer, a novel stimulation device (read pg. 3). This innovation was selected for the "Jon Dehaan Foundation Prize" competition. The presentation is available in an on-demand video entitled « Universal direct wire pacing (DWP) device to simplify THV and complex PC" and presented by Nicolas Dumonteil.

Come and join us at EuroPCR 2021!

Inside this issue

EBC Main

By David Hildick-Smith
PI of the trial



The EBC MAIN trial is the second clinical trial to come out of the European Bifurcation Club and CERC. In the first (EBC TWO) we looked at patients with large true coronary artery bifurcations (non-left-main) and randomly allocated them to the stepwise layered provisional strategy or the planned two-stent approach. After one year there was no difference between the two groups in terms of death, MI and revascularisation. This was helpful as it showed that there was no need to prejudge the issue in these anatomies. A stepwise approach would allow the right choice to be made sequentially as the procedure unfolded, based on the results from each incremental step.

The EBC MAIN trial is built along similar lines. While most bifurcation treatment data has confirmed that the single-stent stepwise approach is best, for the left main there has been data suggesting that a planned two-stent strategy may be superior.

The EBC MAIN trial recruited patients with true distal left main stem bifurcations and randomised them to the stepwise approach or the upfront planned two-stent approach. It is fair to say that the previous trial suggesting that the two-stent approach may be superior has meant that there is considerable interest in the outcome of this study.

450 patients have been randomised in 11 different European countries. Medtronic kindly provided an educational grant for the study, which used the Onyx drug-eluting stent platform. Of course getting the data from all centres has proved more difficult than usual during the pandemic and the team from CERC have worked tirelessly on remote monitoring to ensure that the data are comprehensive, accurate and robust. Hard work from the CEC, DSMB and CoreLab has also ensured the probity of the data.

At the time of writing, we are collating the early results from the study, readying ourselves for the presentation at PCR 2021 (see p1). Doing all of this "remotely" presents its challenges but at times has also allowed for rapid electronic resolution of queries, so it has not been all bad!

CERC and the EBC are looking forward to welcoming you to the presentation, and the discussion of the results. Simultaneus publication is anticipated in European Heart Journal.

Post-Market Clinical Follow-up (PMCF)

By Ute Windhovel
Regulatory Affairs Manager

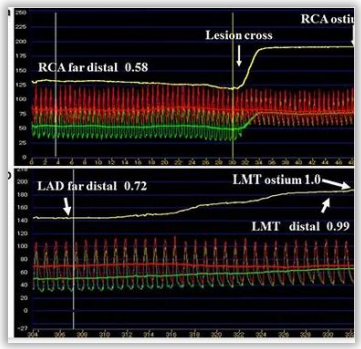
Post-Market Clinical Follow-up (PMCF) is an essential component of Post-Market Surveillance (PMS) applying to almost all medical devices under the New Medical Device Regulation (MDR 2017/745/EU), which will be fully implemented on May 26, 2021. While the notion of PMCF was first introduced in MEDDEV guideline 2.12 rev2, the importance of PMCF has increased under MDR. MDR places a strong focus on PMCF as the proactive part of PMS. According to MDR, PMCF is a continuous process that updates the clinical evaluation of a specific device. It is expected to consist of a proactive collection and evaluation of clinical data from the use in or on humans of a device which bears the CE marking and is placed on the market or put into service within its intended purpose. The aims of PMCF are to confirm the safety and performance of the device throughout its expected lifetime, identify previously unknown side-effects and monitor the identified side-effects and contraindications, identify and analyse emergent risks on the basis of factual evidence, ensure the continued acceptability of the benefit-risk ratio and to identify possible systematic misuse or off-label use of the device, with a view to verifying that the intended purpose is correct. PMCF studies are performed on a medical device bearing CE-mark within its intended purpose as detailed in the instructions for use of the respective device. They contribute to the risk management process of the device. PMCF studies are to be conducted according to applicable laws and regulations, ethical requirements and should follow appropriate guidance and standards such as ISO14155. The PMCF study plan includes (a) clearly stated objective(s), scientifically sound study design and statistical analysis methods. CERC proposes cost-effective solutions to assist cardiovascular medical device manufacturers ensuring compliant PMCF according to MDR. The proposed services include, but are not limited to PMCF study protocol writing, electronic data collection system, study site-set-up and follow-up, statistical analysis and annual reporting. Applying centralized monitoring and risk-based source data verification guarantees high quality of collected data.

Some of the new studies at CERC

By Marie-Claude Morice
CEO

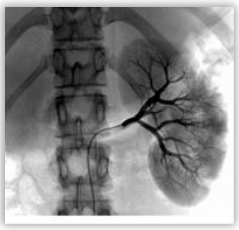
We are pleased to announce that CERC will be taking part in several exciting new studies:

First of all, OPTI-XIENCE, set up by the Spanish Society of Cardiology and coordinated by Dynamic, will involve several French centers.



The purpose of this study is to evaluate how the use of FFR and OCT may optimize the outcomes of PCI with stenting.

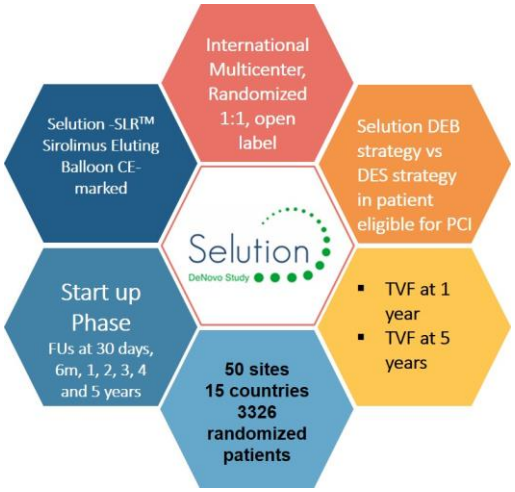
For the second study conducted by Kalos Medical, a randomized trial evaluating the outcome of renal denervation vs. sham, CERC will be in charge of the corelab.



This will be our first participation in this very interesting and so rapidly evolving field, now that we know that renal denervation has a role to play in the treatment of hypertension.

And last but not least, we will be going back to the future with a ground-breaking extremely disruptive trial assessing a sirolimus-eluting balloon in de-novo lesions.

The SELUTION DeNovo Study is a landmark study that will compare "All DEB" and "All DES" strategies and is powered to change medical practice.



Electroducer

By Benjamin Faurie
PI of the study

This multicenter first-in-man trial aims to demonstrate safety and efficacy of a universal direct wire pacing (DWP) device during TAVI and complex PCI, via the radial and femoral access with several types of coronary and TAVI guidewires.

Direct wire pacing technique has shown better procedural TAVI outcomes in registries and a randomized controlled trial (EASY TAVI Faurie B. et al. JACC interv 2019) by evidencing a reduction in procedure duration, radiation exposure and costs with similar efficacy and safety as SEES.

Nevertheless, this approach may have some limitations related to risks of technical mistakes and stimulation failure due to high voltage threshold, electrical pain at puncture site and blood exposure accident (anode: needle in the groin).

The Electroducer® Sleeve was, therefore, developed to allow direct wire pacing while simplifying, securing and improving this technique.

We analyzed the procedural and 1-month safety and efficacy in a total of 60 patients: 39 TAVI and 21 PCI in 3 centers included between August 20 and January 21. The Electroducer Sleeve was inserted either via the transradial (32) or transfemoral (28) approach. Primary endpoint was bleedings at access site (BARC and EASY classification), secondary endpoints were radial artery occlusion (duplex), efficacy and performance (EKG capture and Voltage threshold), procedural time for TAVI and patient comfort.

The full safety and efficacy outcomes will be presented at EuroPCR 2021 and should reveal that the device is safe without major vascular complications, a decrease in voltage threshold and procedural duration while remaining well tolerated by patients.

This new technology obviates the need for a temporary pacing catheter or a subcutaneous needle that are used for the Direct Pacing (DWP) technique. Thus, the Electroducer Sleeve can simplify, secure and improve the reproducibility of the DWP technique allowing its spreading and democratization.

The development of this device is part of global approach and Electroducer's future objectives are to reduce major adverse cardiac events compared to temporary pacing catheters during cardiac interventions. Minimally invasive procedures have already proven to be less morbid and less costly, but these techniques could also provide other benefits: reduce stress, improve patient comfort and quality of life.

Latest publications about our trials

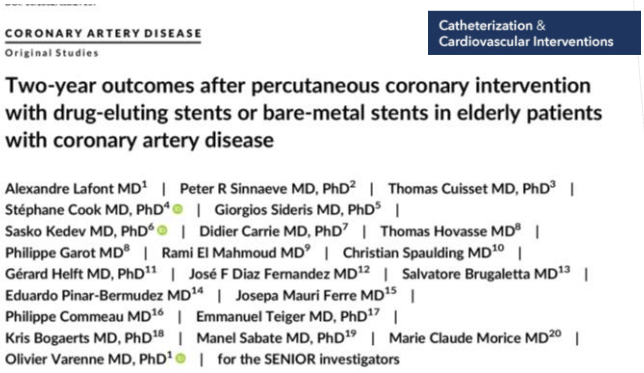
THE PRESENT AND FUTURE

JACC SCIENTIFIC EXPERT PANEL

Trial Design Principles for Patients at High Bleeding Risk Undergoing PCI

JACC Scientific Expert Panel

Davide Capodanno, MD, PhD,[a] Marie-Claude Morice, MD,[b] Dominick J. Angiolillo, MD, PhD,[c] Deepak L. Bhatt, MD, MPH,[d] Robert A. Byrne, MB BCh, PhD,[e,f] Roisin Colleran, MB BCh,[e,g] Thomas Cuisset, MD,[h] Donald Cutlip, MD,[i] Pedro Eerdmans, MD, PhD, MSc,[j] John Eikelboom, MD,[k] Andrew Farb, MD,[l] C. Michael Gibson, MD,[m,n] John Gregson, BSc, MSc, PhD,[o] Michael Haude, MD,[p] Stefan K. James, MD,[q] Hyo-Soo Kim, MD,[r] Takeshi Kimura, MD,[s] Akihide Konishi, MD, PhD,[t] Martin B. Leon, MD,[u,v] P.F. Adrian Magee, MD,[t] Yoshiaki Mitsutake, MD,[t] Darren Mylotte, MD,[w] Stuart J. Pocock, PhD,[o] Sunil V. Rao, MD,[x] Ernest Spitzer, MD,[y,z] Norman Stockbridge, MD, PhD,[t] Marco Valgimigli, MD, PhD,[aa] Olivier Varenne, MD,[bb,cc] Ute Windhovel, PhD,[b] Mitchel W. Krucoff, MD,[x,dd] Philip Urban, MD,[ee] Roxana Mehran, MD[ff]



CORONARY ARTERY DISEASE

Original Studies

Catheterization & Cardiovascular Interventions

Two-year outcomes after percutaneous coronary intervention with drug-eluting stents or bare-metal stents in elderly patients with coronary artery disease

Alexandre Lafont MD[1] | Peter R Sinnaeve MD, PhD[2] | Thomas Cuisset MD, PhD[3] | Stéphane Cook MD, PhD[4] | Giorgios Sideris MD, PhD[5] | Sasko Kedev MD, PhD[6] | Didier Carrie MD, PhD[7] | Thomas Hovasse MD[8] | Philippe Garot MD[8] | Rami El Mahmoud MD[9] | Christian Spaulding MD[10] | Gérard Helft MD, PhD[11] | José F Diaz Fernandez MD[12] | Salvatore Brugaletta MD[13] | Eduardo Pinar-Bermudez MD[14] | Josepa Mauri Ferre MD[15] | Philippe Commeau MD[16] | Emmanuel Teiger MD, PhD[17] | Kris Bogaerts MD, PhD[18] | Manel Sabate MD, PhD[19] | Marie Claude Morice MD[20] | Olivier Varenne MD, PhD[1] | for the SENIOR investigators

Research

JAMA Cardiology | Original Investigation

Assessing the Risks of Bleeding vs Thrombotic Events in Patients at High Bleeding Risk After Coronary Stent Implantation

The ARC-High Bleeding Risk Trade-off Model

Philip Urban, MD; John Gregson, PhD; Ruth Owen, MSc; Roxana Mehran, MD; Stephan Windecker, MD; Marco Valgimigli, MD, PhD; Olivier Varenne, MD, PhD; Mitchell Krucoff, MD; Shigeru Saito, MD; Usman Baber, MD, MSc; Bernard Chevalier, MD; Davide Capodanno, MD, PhD; Marie-Claude Morice, MD; Stuart Pocock, MSc, PhD

Circulation

ORIGINAL RESEARCH ARTICLE

Comparison of Self-Expanding Bioprostheses for Transcatheter Aortic Valve Replacement in Patients With Symptomatic Severe Aortic Stenosis

SCOPE 2 Randomized Clinical Trial

BACKGROUND: Few randomized trials have compared bioprostheses for transcatheter aortic valve replacement, and no trials have compared bioprostheses with supra-annular design. The SCOPE 2 trial (Safety and Efficacy Comparison of Two TAVI Systems in a Prospective Randomized Evaluation 2) was designed to compare the clinical outcomes of the ACURATE neo and CoreValve Evolut bioprostheses for transcatheter aortic valve replacement.

Corrado Tamburino, MD, PhD
⋮
Davide Capodanno, MD, PhD

Cardiovascular European Research Center

CERC
7, rue du Théâtre
F 91300 Massy France
Tél : +33 (0)1 76 73 92 10
Fax : +33 (0)1 60 11 17 91

www.cerc-europe.org