



# New Horizons in Cardiology & Cardiologists Education

March 07-08, 2019 | Berlin, Germany

Cardiology Insights 2019



### Sessions

Clinical Cardiology | Heart Diseases Electrocardiography | Nuclear Cardiology Women & Heart Disease

Session Chair

Galina B Belostotskaya Sechenov Institute of Evolutionary Physiology and Biochemistry, Russia

### **Session Introduction**

Title:	Complex proximal right coronary artery chronic total occlusion, in patient affected by dilated ischemic cardiomyopathy, with low EF and sustained ventricular arrhythmias
	Tedeschi D, Istituto Clinico S.Anna, Italy
Title:	Usefulness of google forms platform to improve communication in acute coronary syndromes in a health care system
	Bruno L R Faillace, Sancta Maggiore Hospital, Brazil
Title:	Novel technique to prevent no/slow flow during PCI by sodium nitroprusside injection time, point and method
	Sarbesh Kumar Jha, Koshi Zonal Hospital, Nepal



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Tedeschi D, J Heart Cardiovasc Res 2019, Volume 3 DOI: 10.21767/2576-1455-C1-002

# Complex proximal right coronary artery chronic total occlusion, in patient affected by dilated ischemic cardiomyopathy, with low EF and sustained ventricular arrhythmias

### Tedeschi D

Istituto Clinico S.Anna, Italy

**Background:** Recent studies, systematic reviews and meta-Analysis suggested that chronic coronary artery total occlusion (CTO), especially infarct related, increases risk of ventricular arrhythmia (VA), appropriate implantable cardioverter defibrillator (ICD) therapy and all-cause mortality in ischemic cardiomyopathy (ICM) patients. However it's not clear whether these threatening arrhythmic events could be prevented by revascularization (CTO-PCI) and the impact of CTO-PCI on the outcome of patients with CTO.

**Conclusion & Significance**: The clinical case presented has a significant interest and can be reason for discussion for the following reasons:

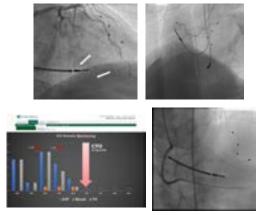
Specific clinical setting as rational to CTO-PCI:

No typical angina, no chest pain, no dyspnea Chronic total occlusion dating back to 1991 (mono-vessel disease) Cardiomyopathy with Low EF 35% and recurrent threatening ventricular arrhythmiasFailure of antiarrhythmic drugs Electric therapy ineffective (ICD; CRT-D)

Challenging Long CTO-PCI, with some technical procedure features, good angiographic result.

The clinical utility and effectiveness of RCA CTO recanalization clearly demonstrated by clinical and unquestionable instrumental data (complete absence of

VA after the PCI). According to a recent meta-analysis involving 1095 patients, the presence of CTO increased the risk of VA and all-cause mortality in ICD-ICM patients up to 60 and 71 percent, respectively. Few data has been published to demonstrate the role of CTO-PCI in patients with recurrent VA, appropriate ICD shock and ischemic cardiomyopathy. In this case the analysis of the clinical history and above all of the ICD remote monitoring, allows a brilliant demonstration of the crucial role of CTO-PCI in patients with recurrent VA and evidence of viability or reversible ischemia on the CTO territory. Further studies are needed to confirm these outcomes and to better classify patients who would benefit from a CTO-PCI in this specific clinical setting.





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### **Recent Publications**

- Wasawat V, Saranapoom K, Pattara R, et al. Impact of Chronic Total Occlusion on Ventricular Arrhythmia and mortality in ischemic cardiomyopathy patient with implantable cardiac defibrillator: A systematic review and meta-analysis. J Am Coll Cardiol March 10, 2018, 71 (11 Supplement)
- Chi WK, Gong M, Bazoukis G, et al. Impact of coronary artery chronic total occlusion on arrhythmic and mortality outcomes: a systematic review and meta-analysis. J Am Coll Cardiol EP 2018; 4:1214-23
- Della Bella P, Frontera A. Chronic Total Occlusion and Ventricular Tachicardia. J Am Coll Cardiol EP 2018; 4:1224-26.
- Nombela-Franco L, Innaccone M, Anguera I, et al. Impact of Chronic Total Coronary Occlusion on Recurrence of Ventricular Arrhythmias in Ischemic Secondary Prevention Implantable Cardioverter-Defibrillator Recipients (VACTO Secondary Study): insight from coronary

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angiogram and electrogram analaysis. J Am Coll Cardiol Intv 2017;10:879-88.

 Raja V, Wiegn P, Obel O, et al. Impact of chronic total occlusions and coronary revascularization on all-cause mortality and the incidence of ventricular arrhythmias in patients with ischemic cardiomyopathy, Am J Cardiol 2015; 116: 1358-62.

### Biography

Delio Tedeschi, Interventional Cardiologist, Director of Cath. Lab. Interventional Cardiology at Istituto Clinico S. Anna Brescia, Gruppo Ospedaliero San Donato - Italy, has a long experience in the field of Interventional Cardiology and Ischemic Cardiomyopathy. During his career he has worked constantly in the fields of Interventional Cardiology, Cardiac Intensive Therapy, carrying out activities of clinical cardiology and echocardiography in parallel. Currently he's director of Interventional Cardiology at Istituto Clinico S.Anna Brescia Italy, where regularly are performed complex PCI (CTO, complex lesions),peripheraand carotid PTA, cardiac structural interventions (DIA, PFO, TAVI) and scientific research activities.

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Bruno L R Faillace et al., J Heart Cardiovasc Res 2019, Volume 3 DOI: 10.21767/2576-1455-C1-002

# Usefulness of Google Forms platform to improve communication in acute coronary syndromes in a health care system

### Bruno L R Faillace, Adriano O Tamazato, Leonardo Coelhor, Evandro K P Ribeiro, Alexandre R Sposito, Fabio Conejo, Roger R Godinho and Rodrigo B Esper

Sancta Maggiore Hospital, Brazil

**Statement**: Telemedicine is an important tool that may facilitate the communication between the emergency room (ER) and the reference interventional cardiology team to improve the quality of treatment in acute coronary syndromes (ACS) scenario.

**Methodology & Theoretical Orientation**: In a health care system with 8 hospitals, 6 ER departments and one reference cardiac laboratory catheterization, a questionnaire was developed using a Google Forms platform that contains the administrative and medical patient's information, ER phone number, and type of ACS. The interventional cardiology team receives and visualizes at the same time the answers of the Google Forms in a table. After reviewing the patient case using the same ER electronic medical record, the interventional team makes a phone contact to the ER physicians, discuss the case and evaluates the possibility of performing an immediately coronarography. All patients with ACS were added in the Google Forms platform.

**Findings**: A number of 1365 consecutive patients were included with ACS from September 2017 to October 2018. Of these, 1096 individuals were diagnosed with non-ST elevation myocardial infarction (NSTEMI) and 269 with ST elevation myocardial infarction (STEMI). Mean age was 72 years. After the discussion, 927 were directly referred for coronary angiography and 424 were to be evaluated and monitored by the cardiology team to

decide the stratification strategy. The average time from ER entrance to CathLab was 2040 minutes before the implementation of the Google Forms in ACS admission. After the introduction of this protocol, the time fell to 449 minutes.

**Conclusion & Significance**: The Google Forms platform can be a useful tool to improve communication between the emergency department and the interventional cardiology team, and can optimize the treatment of the ACS patients.

### **Recent Publications**

- Faillace B L R, Ribeiro H B, Campos C M, Truffa A A M, Bernardi F L, Oliveira M D P, Mariani J Jr., Marchini J F, Tarasoutchi F and Lemos P A (2017) Potential of transcatheter aortic valve replacement to improve post-procedure renal function. Cardiovasc Revasc Med. 18(7):507-511.
- Bruno L R Faillace, Micheli Z Galon, Marcos Danillo P Oliveira, Guy F A Prado Jr., Adriano A M Truffa, Expedito E Ribeiro and Pedro A Lemos (2015) Left main compression by a giant aneurysm of the left sinus of valsalva: an extremely rare reason for myocardial infarction and cardiogenic shock. Case Rep Cardiol.



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2015:703646. doi: 10.1155/2015/703646.

- 3. Marcos Danillo Peixoto Oliveira, Expedito E Ribeiro, Carlos M Campos, Henrique B Ribeiro, Bruno L R Faillace, Augusto C Lopes, Rodrigo B Esper, George X Meirelles, Marco A Perin, Alexandre Abizaid and Pedro A Lemos (2015) Four-year clinical follow-up of the first-in-man randomized comparison of a novel sirolimus eluting stent with abluminal biodegradable polymer and ultra-thin strut cobalt-chromium alloy: the INSPIRON-I trial. Cardiovasc Diagn Ther. 5(4):264-70.
- Biselli B, Ulhoa M B, Faillace B L R, Pinton F A, Escalante J P, Bacal F, Issa V S, Ayub Ferreira S M, Lemos Neto P A and Bocchi E A (2013)

Cardiogenic shock after traumatic coronary hematoma. European Journal of Heart Failure 1:S331-S331.

### Biography

Bruno L R Faillace has his expertise in Interventional Cardiology. He is a Brazilian Physician who has completed his training in Clinical and Interventional Cardiology at the Heart Institute of São Paulo, Brazil. Since college, his research line has always been in the cardiology area. Currently, he works at Sancta Maggiore Hospital in São Paulo and has been emerging among the new generation of interventional cardiologists at the national setting.

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Sarbesh Kumar Jha, J Heart Cardiovasc Res 2019, Volume 3 DOI: 10.21767/2576-1455-C1-002

# Novel technique to prevent no/slow flow during PCI by sodium nitroprusside injection time, point and method

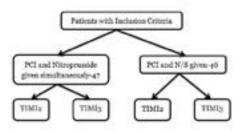
### Sarbesh Kumar Jha

Koshi Zonal Hospital, Nepal

Introduction: The no-reflow incidence appears to be highest in acute myocardial infarction patients who undergoes primary percutaneous coronary intervention (PCI) or during PCI of saphenous vein grafts. The intracoronary administration of medications that causes vasodilatation in small distal coronary vasculature forms the base of management of no-reflow. Sodium nitroprusside (NTP) does not require intracellular metabolism to induce vasodilatation in microcirculation. In view of above present study was undertaken to evaluate efficacy and usefulness of sodium nitroprusside in prevention of no/ slow reflow at the time of fixing stents and balloons simultaneously and complications associated with it.

**Material & Methods**: The current study comprised of 93 patients who were done percutaneous coronary interventions and were randomly divided into two groups namely: Drug (Nitroprusside) given group (n=47) and placebo group (n=46). A stent or a balloon on specific lesion was passed and then loading dose of sodium nitroprusside (50-100 micro gram) or normal saline (2-3 ml) was prepared and injected through guiding catheter into coronary artery. Maximum Duration of decreased BP and TIMI Grade were noted. A Pearson correlation analysis was conducted to examine whether there is a relationship between Nitroprusside and Coronary Slow/ No Reflow. A statistical analysis of numerical variables expressed as mean±SD was done using ANOVA. **Results**: Five cases of coronary slow/no reflow in placebo group and no cases in nitroprusside group were reported. A significant and negative relationship between 2 parameters (r=.24, N=93, p=.02). The Lowest SBP was 56 mmHg (Mean=101.34, SD=20.663), maximum SBP difference with in 2-3 minute each time drug was given was 100 mmHg (Mean=29.38, SD=18.431) and maximum duration of falling blood pressure was 180 seconds (Mean=91.21, SD=24.655).

**Conclusion:** Intracoronary nitroprusside is useful for the prevention of the slow reflow or no-reflow phenomenon following PCI in acute myocardial infarction. This knowledge can be utilized to prevent the coronary vaso-spasm during PCI which would be beneficial to reduce complications during and after PCI. After this trial since 2013-2017 we used same procedure for more than 4000 patients and only two patients were reported slow flow.



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### **Recent Publications**

- 1. Novel Technique to Prevent No/Slow Flow during PCI by Sodium Nitroprusside Injection Time, Point and Method.
- 2. Artificial Cervical Disc Replacement; "Double edge Sword" a clinical review.
- 3. Morphine consumption in a Tertiary Care Hospital in Eastern Nepal
- 4. Pattern and Outcome of Acute Poisoning Cases in a Tertiary Care Hospital in Eastern Nepal.
- 5. Comparison of health education, oral Rehydration solution, Metoprolol and midodrine intervention in children with POTS.

#### Biography

Sarbesh Kumar Jha, MD and PhD, recently done research in intervention cardiologist to prevent disaster of slow flow during PCI, and another research how to approach CTO and which CTO clinically significant to open. Dr. Jha has his/expertise in intervention cardiologist. He has build model medical teaching method in china in 1997 which (English medium) after years of experience in research, evaluation, teaching and administration in organization. He had variety of experience in different role of job during his young carrier eg; worked as researcher, emergency coordinator during disaster, humanitarian expert, work in conflict situation, field based clinical research to operational based research.

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### Sessions

Case Reports on Arrhythmias and Pericardial Disease | Innovative New Cardiac Imaging Cardiac Surgery

### Session Chair

Galina B Belostotskaya Sechenov Institute of Evolutionary Physiology and Biochemistry, Russia

### **Session Introduction**

 Title:
 Forearm approach-changing mindset

 Bruno L R Faillace, Sancta Maggiore Hospital, Brazil

 Title:
 Coronary angiogram and graft study with single diagnostic catheter in dextrocardia: Best approach for cath lab with limited resources

Naseer Ahmed, Tabba Heart Institute, Pakistan



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Bruno L R Faillace et al., J Heart Cardiovasc Res 2019, Volume 3 DOI: 10.21767/2576-1455-C1-002

### Forearm approach - changing mindset

### Bruno L R Faillace, Adriano O Tamazato, Leonardo S Coelho, Evandro K P Ribeiro, Alexandre R Sposito, Fabio Conejo, Roger R Godinho and Rodrigo B Esper

Sancta Maggiore Hospital, Brazil

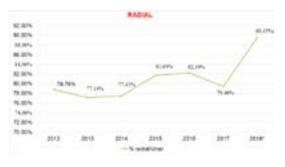
**Statement:** Radial access offers several benefits to patients, including reducing mortality in some settings. To ensure this, the interventional cardiologist must want to use that access path. To increase this technique use, the physician first needs to change the mindset. Although slightly more technically difficult and less supportive than femoral access, it proved to be safer and feasible.

Methodology & Theoretical Orientation: Several studies, including RIVAL trial, have shown the superiority of radial access in percutaneous coronary interventions. With this information, after a meeting of the hospital interventional cardiology team, it was decided to increase the use preference of the forearm vessels (radial and ulnar arteries of both arms) in all patients. In cases of puncture site changing (cross over), the physicians would opt for the other arm instead of femoral access. In individuals with previous surgical revascularization (CABG), the procedure would be performed by the left arm due to the presence of left internal mammary artery. The data of all patients are stored in a database.

**Findings**: After changing the mindset, there was an expressive increase in cases of forearm access. The service average, which was already high, went from 80% to 89%, reaching a rate of 96% in April 2018. The most used access was the right radial and the cross over rate was very low (3%). Using the forearm access, it is possible to reduce the length of hospital stay after a coronarography and to increase the rate of the same day discharge after a percutaneous coronary intervention.

Thus, the concept of the radial lounge was implemented, which provides a greater hospital stay.

**Conclusion & Significance**: After a simple attitude of changing the interventional cardiology team mindset, the safer forearm vascular access can be offered to the patients more frequently.



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- Faillace B L R, Ribeiro H B, Campos C M, Truffa A A M, Bernardi F L, Oliveira M D P, Mariani J Jr., Marchini J F, Tarasoutchi F and Lemos P A (2017) Potential of transcatheter aortic valve replacement to improve post-procedure renal function. Cardiovasc Revasc Med. 18(7):507-511.
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> A M Truffa, Expedito E Ribeiro and Pedro A Lemos (2015) Left main compression by a giant aneurysm of the left sinus of valsalva: an extremely rare reason for myocardial infarction and cardiogenic shock. Case Rep Cardiol. 2015:703646. doi: 10.1155/2015/703646.

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