

21st CARDIOVASCULAR SUMMIT
TCTAP 2016

DAILY NEWS

Late Breaking Clinical Trials



Yesterday's Highlights

Today's Highlights

Morning Round Table Forum

7:00 AM – 8:10 AM
 Endovascular Theater, Level 1
 Coronary & Valve Theater, Level 1
 The Latest Update "Presentation Theater", Level 1

Challenging Case Competition with Experts' Focus Review I, II, III

8:30 AM – 12:54 PM
 Coronary & Valve Theater, Level 1
 The Latest Update "Presentation Theater", Level 1
 Room 105, Level 1

19th KCTA Symposium

8:20 AM - 12:40 PM
 Endovascular Theater, Level 1

Yesterday morning's late breaking session in Main Arena 1 dived straight into the cutting-edge TCTAP 2016 program with a frank and open look at the treatment for acute myocardial infarction (AMI), Chronic total occlusion (CTO) and the extended roles of Absorb bioresorbable vascular scaffold (BVS).

The Trends of AMI Over 15 Years in Taiwan

Because of the high public health burden associated with coronary heart disease, monitoring the trends in AMI is very important. Many previous reports have contributed to an evolving strategy for primary and secondary prevention of AMI and a decreasing incidence of AMI. However, these existing studies have been conducted in cohorts drawn from North American or European populations. As there are diverse sociodemographic patient groups, the data based on Asian populations are needed and meaningful.

He enrolled patients who were hospitalized for incident AMI between 1997 and 2011 from the inpatient medical claim data set of the National Health Insurance Research Database. Age- and sex- adjusted incidence and in-hospital mortality rates were calculated for AMI, and separately for ST-segment elevation and non-ST-segment elevation myocardial infarction (STEMI and

NSTEMI).

A total of 144,634 patients were identified. The incidence rates (per 100,000 population) of AMI increased from 30 in 1997 to 42 in 2011, which was mainly driven by the increase of NSTEMI (Figure 1). The in-hospital mortality rate after AMI decreased from 9.1 % in 1997 to 6.5 % in 2011, which was

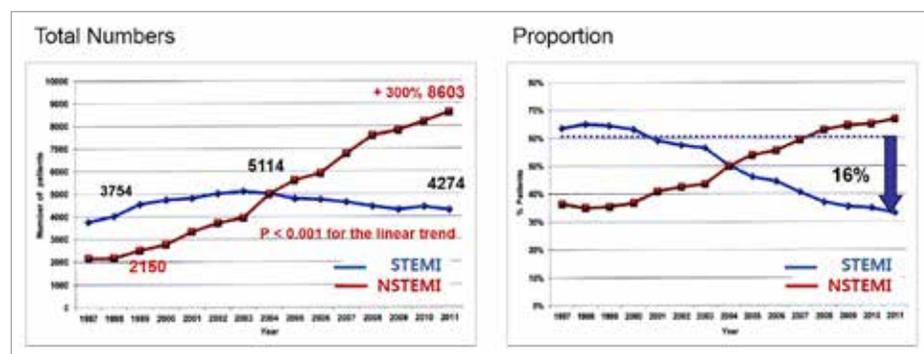


Figure 1.

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*Kuanchun Chen, MD
 Cheng Hsin General Hospital, Taiwan*

Kuanchun Chen, MD, Cheng Hsin General Hospital (Taiwan) pre-sented the temporal trends of incidence, treatment, and in-hospital mortality of acute myocardial infarction over 15 years in a Taiwanese population.



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Certificate of Attendance	Lost and Found / Coat Room
Certificate of attendance for TCTAP 2016 will be distributed along with the badge.	<ul style="list-style-type: none"> Friday, April 29 @ Registration Booth, Level 1
<ul style="list-style-type: none"> Friday, April 29 @ Registration Booth, Level 1 	Tour Information
	Tour information will be provided by COSMOJIN TOUR.
	<ul style="list-style-type: none"> Friday, April 29 @ Registration Booth, Grand Ballroom Lobby, Level 1

Program at a Glance : Friday, April 29, 2016

	Endovascular Theater Level 1	Coronary & Valve Theater Level 1	Presentation Theater Level 1	Room 105 Level 1
07:00	Morning Round Forum 7:00AM-8:10AM			
08:00				
09:00	19th KCTA Symposium 8:20AM - 12:40PM	Challenging Case Competition with Experts' Review Complex PCI 8:30AM-12:26PM	Challenging Case Competition with Experts' Review Endovascular 8:30AM-12:26PM	Challenging Case Competition with Experts' Review Complex PCI Structural Heart ACS & AMI 8:30AM-12:54PM
10:00				
11:00				
12:00				
01:00				

※ Please refer to TCTAP 2016 Mobile App or Final Program book for the specific program information.

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Cheol Whan Lee, MD

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Evidence-Based Lectures

- DES & BVS Issues
- Technical Tips & Tricks
- Imaging: IVUS, VH-IVUS, OCT, CT, MR, FFR, etc.
- Adjunctive Pharmacology
- Up-to-date Clinical Trials and Registries
- How to Make Good Clinical Trials

and much more...

Registration Site & Contact

Attn: Ms. Hyerim YUN (CVRF)
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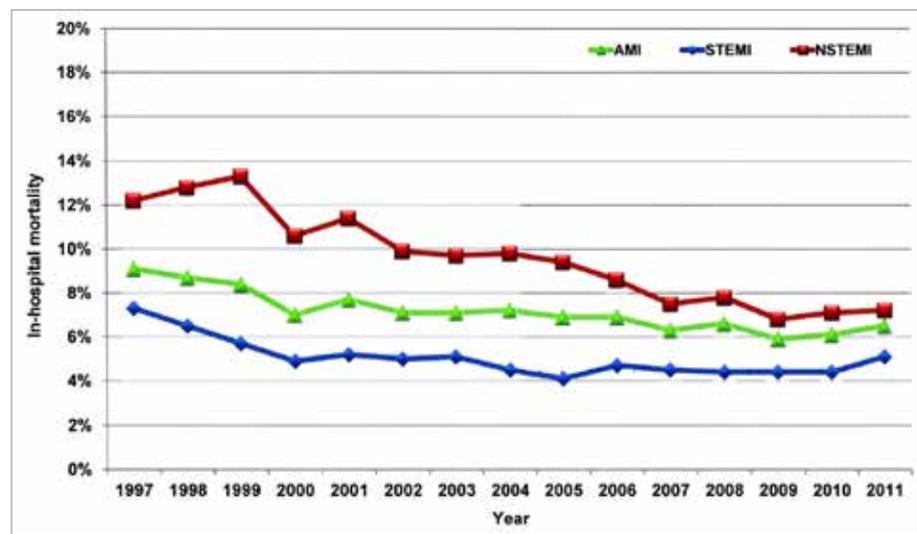


Figure 2.

also driven by the case mortality rate for NSTEMI. Although the in-hospital mortality rate significantly decreased from 7.3% to 5.1% between 1997 and 2003 for STEMI, it did not change significantly from 2004 to 2011 (Figure 2). Moreover, AMI patients undergoing revascularization treatment, particularly PCI, was the most important independent predictor for improved in-hospital survival. The results of this study demonstrated a recent dramatic increase in the incidence rate and a decrease in short-term mortality in patients with NSTEMI; while the incidence and in-hospital mortality of STEMI only modestly changed over time in Taiwan. Further quality improvement approaches for AMI prevention and treatment will favorably affect the incidence and outcomes from both.

Outcomes of Re-Attempt CTO-PCI

Current observational studies suggest

that successful percutaneous coronary intervention (PCI) for CTO is associated with improvement in patient symptoms, quality of life, left ventricular function, and survival, compared to those with unsuccessful CTO-PCI. Therefore, CTO recanalization should be considered. Moreover, CTO lesions which had previously attempted PCIs but failed were independent predictors for successful interventional revascularization in itself.



Masaki Tanabe, MD
Dai-Ni Okamoto General Hospital, Japan

Masaki Tanabe, MD, Dai-Ni Okamoto General Hospital (Japan) evaluated the clinical outcomes of re-attempt PCI for CTO lesions via the Japanese Retrograde Summit Registry. The data of 3,185 cases between January 2009 and December 2013 from 56 centers in

Japan were used for the analysis to clarify efficacy and safety of re-attempt CTO-PCI. The patients were classified into two groups depending on whether the CTO-PCI was attempted following a previous unsuccessful procedure or it was an initial attempt. 325 patients received re-attempted CTO-PCI (10.2%); of those 102 (31.4%) cases were treated by the same operator as previous procedure.

Re-attempted group had very complex lesion, especially which had significantly higher mean J-CTO score (2.78 ± 0.99 vs. 1.41 ± 0.98 , $P < 0.0001$, Figure 3). CTO-PCIs in the right coronary artery were more often undertaken in both groups. Procedure success rate was significantly low in the re-attempted group (82.5% vs. 89.1%, $P = 0.004$). On the other hand, re-attempted CTO-PCI lesions were treated more frequently with the retrograde approach (63.8% vs. 28.0%, $P < 0.0001$) and had longer procedural times, fluoroscopic times, higher radiation dose and more contrast administration compared to initial attempted CTO-PCI lesions. Moreover, success rate of re-attempt PCI that was performed by the same operator was also significantly low compared to different operator (67.7% vs. 89.2%, $P = 0.0001$, Table 1). No significant differences were observed in the occurrence of MACCE and other complications. Calcified lesion was an independent predictor of procedure failure.

He concluded that re-attempted CTO-PCI lesions were more complicated so the retrograde approach was used more frequently. And careful preoperative evaluation of lesion calcification and selection should be considered for a successful re-attempt CTO-PCI.

Absorb BVS in Calcified Lesions

The influence of revolutionary devices and technologies is a powerful component in driving change in interventional practice. With that in mind, two late breaking clinical

trials were shown yesterday morning at TCTAP, with a straightforward question being laid bare from the outset: could we use Absorb BVS for treatment of AMI and severely calcified coronary artery? The practical use of BVS following ABSORB study is dramatically increasing in simple lesions (Type A). However, the limitation of BVS in complex lesions is skeptical to interventionalists who usually encounter lesions that are far more complex than simple type A lesions in day-to-day practice.



Babu Ezhumalai, MD
Fortis Escorts Heart Institute, India

Babu Ezhumalai, MD, Fortis Escorts Heart Institute (India) suggested the possibility of using Absorb BVS with rotational atherectomy for severely calcified lesions. Patients who underwent rotational atherectomy and stenting of severely calcified

coronary arteries with Absorb BVS over a period of 2 years were included in this study. Rotational atherectomy of the target lesion was performed. Additional preparation of lesion was done with non-compliant balloon. Absorb BVS scaffold was deployed gradually at nominal pressure and then post-dilated at high pressure using non-compliant balloon. Patients were followed up periodically until 3 years after the procedure. On follow up, stress testing and CT coronary angiography were done in these patients. 33 patients were included in this study. The mean size of rota burr used was 1.5 ± 0.2 mm. The mean number of burrs used per patient was 1.2 ± 0.4 mm. In this study, 64 Absorb BVS scaffolds were used in 33 patients. The mean diameter and length of Absorb BVS scaffold used were 3.1 ± 0.4 mm and 23.0 ± 5.3 mm respectively. The mean pressure of pre-dilatation, deployment of scaffold and post-dilatation were 19.1 ± 4.5 mmHg, 8.3 ± 1.1 mmHg and 23.9 ± 2.6 mmHg. The median duration of follow up was 25

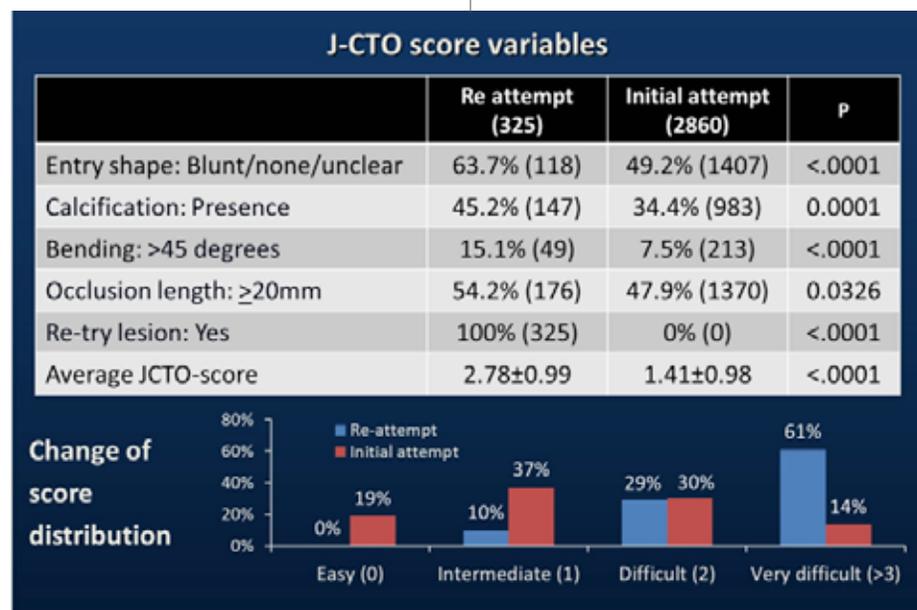


Figure 3.

Table 1.

	Same Operator (102)	Different Operator (212)	P
Procedure Success			
Overall (314)	67.7% (69)	89.2% (189)	<.0001
Antegrade alone (109)	72.4% (21)	93.8% (75)	0.0024
Retrograde alone (136)	86.0% (43)	91.9% (79)	0.2782
Combined (69)	21.7% (5)	76.1% (35)	<.0001
Clinical Success			
Overall (314)	67.7% (69)	88.7% (188)	<.0001
Antegrade alone (109)	72.4% (21)	93.8% (75)	0.0024
Retrograde alone (136)	86.0% (43)	90.7% (78)	0.3991
Combined (69)	21.7% (5)	76.1% (35)	<.0001

Continued on page 5

All abstracts and cases presented at TCTAP2016 are published in the online JACC supplement.

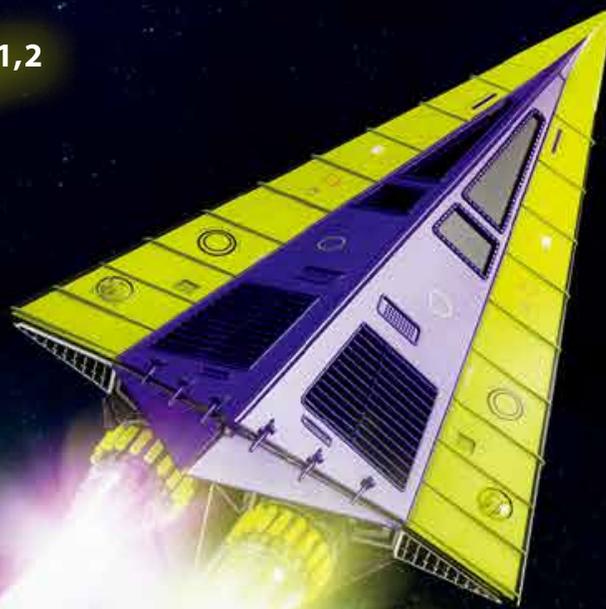
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1. Shepherd J. The role of the exogenous pathway in hypercholesterolaemia. *Eur Heart J Suppl.* 2001;3(suppl E):E2-E5.
2. Bays H. Ezetimibe. *Expert Opin Investig Drugs.* 2002;11:1587-1604.

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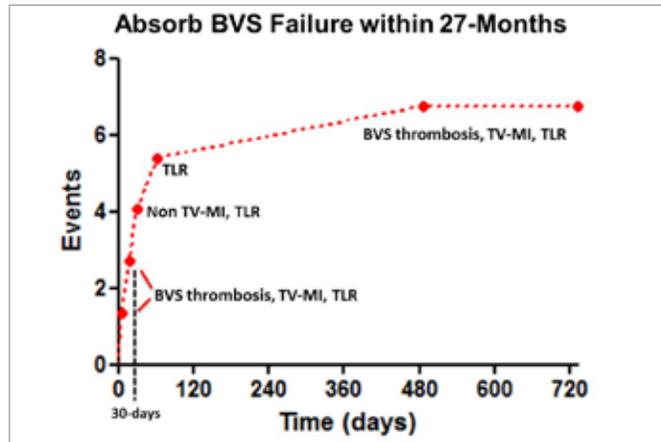


Figure 4.

months (range: 10 to 36 months). Two patients developed restenosis and were treated with further stent implantation. One patient had progression of another lesion in the target vessel needing further stent implantation. The remaining 30 patients were doing fine without any major adverse clinical events. Most importantly, there was no acute, subacute or late scaffold thrombosis or acute MI. He said that rotational atherectomy and stenting of calcified coronary arteries with Absorb BVS is possible in giving patients excellent results at immediate-term, short-term and long-term.

Two-Year Outcomes of Absorb BVS in STEMI

Current studies reported that the Absorb BVS implantation in STEMI patients appeared



Alfonso Ielasi, MD
Bolognini Hospital
Seriata, Italy

who underwent PPCI with BVS implantation (within the Registro Absorb Italiano: RAI Registry. ClinicalTrials.gov Identifier: NCT02298413). The end-point of this analysis was the occurrence of a device oriented composite end-point (DOCE: cardiac death, target vessel myocardial infarction [TV-MI], ischemia-driven target lesion revascularization [ID-TLR]) at

feasible and associated with encouraging early and mid-term results. However, concerns remain about the safety of Absorb BVS because a non negligible thrombosis rate was reported within the first 30 days after implantation. And there is currently no available data for the very late (>12 months) Absorb BVS performance after primary percutaneous coronary intervention (PPCI).

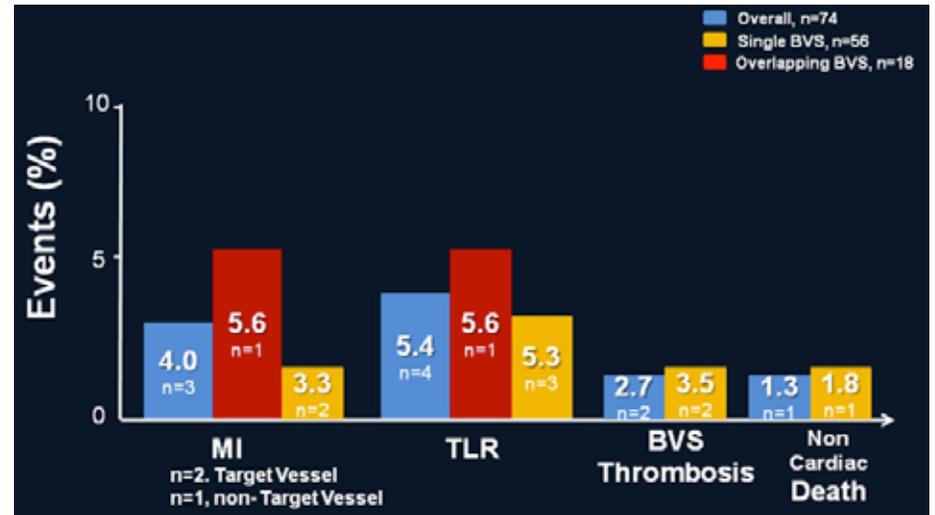


Figure 5.

24-month follow-up. Between December 2012 and February 2014, 1,232 STEMI patients underwent PPCI at the participating centers.

Of these, 74 (6.0%) received Absorb BVS and 18 (24.3%) of them were multiple and overlapping. Mean patient age was 54.4±10.5 years. Final TIMI 3 flow was obtained in 73 (98.6%) cases. Within 30-days follow-up, 2 (2.7%) patients experienced a non-fatal TV-MI due to sub-acute Absorb BVS thrombosis while on dual anti-platelet therapy (DAPT). Between 30 days and 24 months they reported: 1 (1.3%) non-fatal TV-MI due to very late Absorb BVS thrombosis (16 months after the index procedure, 2 days after DAPT discontinuation) and 2 (2.7%) ID-TLR (both

within 12 months, **Figure 4**). All the events were successfully managed with re-PCI. The DOCE at 24-month follow-up occurred in 6.7% (5/74) of patients (**Figure 5**). He said "Our long-term follow-up in a consecutive cohort of STEMI patients treated with Absorb BVS implantation shows that DOCE rate is relatively low. Larger studies are needed to better assess the potential influence of Absorb BVS implantation techniques and DAT duration on early and late/very late Absorb BVS failure in STEMI patients."

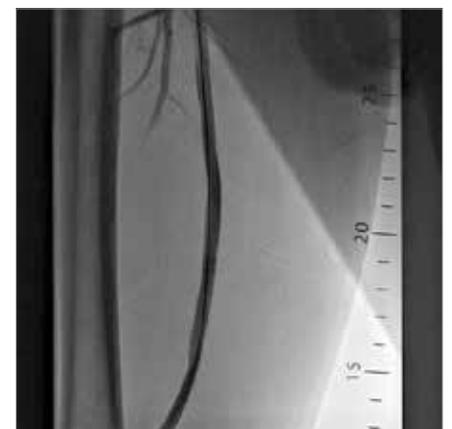
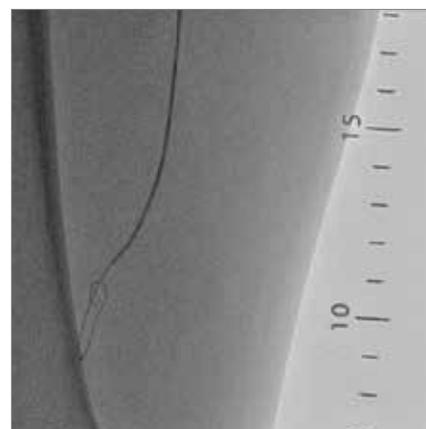
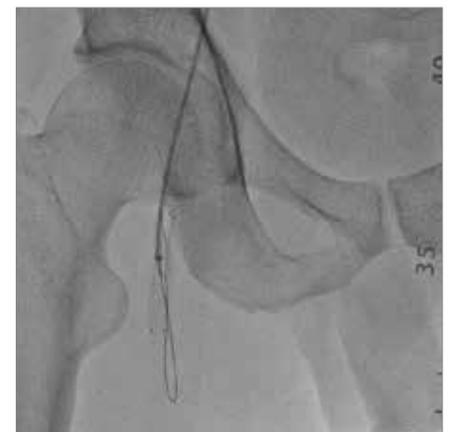
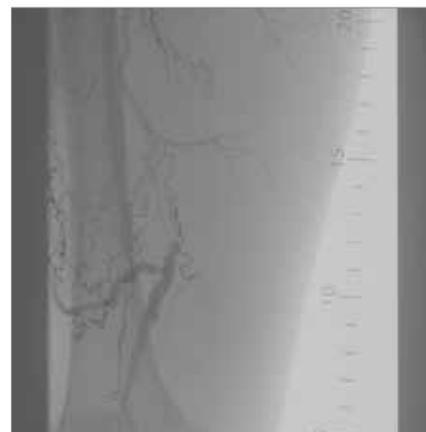
Late Breaking Clinical Trials

- » Thursday, April 28, 10:30 AM - 11:26 PM
- » The Latest Update "Presentation Theater", Level 1

Yesterday's Hot Live



A 56 year-old man was admitted for a recurrent right claudication which was medically intractable. He had a history of prior percutaneous transluminal angioplasty, of which he received a stent implantation at right proximal superficial femoral artery (SFA). The right ankle-brachial index was 0.74. The baseline angiography showed total occlusion at the entry portion of the previous stent, located at the ostium of SFA, and this occlusion extended through the distal portion of SFA, which was reconstructed and perfused by collaterals supplied by the DFA. Although there was a stump at the entry point, tracking the true lumen through this stump was extremely hard. Using a J-tipped 0.035 inch Terumo wire supported by both Glide and 6 Fr Ansel catheter, subintimal tracking was done following successful re-entry in the true lumen at the distal SFA level. After serially dilating the subintimal space with Admiral xtreme 5.0 (200) and Mustang 6.0 (40) balloon, two Zilver PTX 6.0 (100) stents were deployed from the distal to proximal portion of SFA. The in-stent lesion was treated with Lutonix 6.0 (100) balloon and the final angiogram showed successful result.



The 4th Best Young Scientist Award Given to Dr. Alfonso Ielasi

Dr. Alfonso Ielasi is a passionate interventional cardiologist of Bolognini Hospital Seriate (BG), Italy. He started his career as an Interventional and Research Fellow under the guidance of Dr. Antonio Colombo at San Raffaele Hospital, Milan, Italy. With a passion aroused by collaboration with San Raffaele's Team, he has been making his career in the subject of complex coronary intervention, PFO closure, and Parachute implantation. Nowadays his focus is on the performance of bioresorbable vascular scaffolds, particularly in patients with ST-segment myocardial infarction. He has been awarded numerous prizes including Best Young Interventional Case Competition Italian Society of Interventional Cardiology (SICI-GISE) in 2012, Best Abstract Presenter Award TCT Asia Pacific in 2015, and Best Abstract Presenter Award Asia PCR Sing/Live in 2016.

Interview with Dr. Ielasi

How did the work with Dr. Colombo and his team inspire you?

The years I spent in San Raffaele Hospital were very important and paved my professional path. Working with Dr Colombo and his team aroused my passion for this discipline and the true desire to advance knowledge and to coordinate the scientific

work in areas where there is such a need. For these reasons, since the beginning of my young career I have been very intrigued not only in performing procedures but also in scientific production with a genuine interest towards clinical research.

What are the attractive points of bioresorbable vascular scaffolds (BVS) technology?

Fully bioresorbable scaffolds (BVS) have been introduced to accomplish the same goals (i.e. provide transient vessel support associated with drug-delivery capability) as metallic DES within the first year after implantation, thereafter disappearing entirely within 3 years after implantation. By liberating the coronary artery from the metallic caging, BVS may allow the vessel to recover pulsatility, to remodel in response to shear and wall stress with late lumen gain, to restore physiological vasomotion, and theoretically to avoid the late adverse events (i.e. stent thrombosis, neo-atherosclerosis) related to the presence of a permanent structure within the vessel wall.

What do you think about the future of BVS technology?

The body of evidence regarding the performance of the actual BVS technology confers a certain sense of déjà vu, as with



first generation DES. The concerns regarding a higher risk of adverse events became apparent with the availability of larger sample sizes and a broader clinical use. However, the awareness of intrinsic limitations of first-generation devices prompted continuous iterations, which led to contemporary high performance DES with unprecedented safety and efficacy. This is certainly the future of BVS technology. Meanwhile, as the process of improvement of BVS technology goes on, the use of these devices should be guided by available evidence and procedural protocols specific to this technology should be followed.

What are your goals for the next five years?

My long-term goals involve progressing my

career in an interventional and research team where I can continue to learn, take on additional responsibilities, and contribute as much value as I can.

Any advice for young cardiologist?

Be passionate and try to intertwine the intellectual fruits of curiosity-driven science with the emotional satisfaction of making a lasting difference in the lives of patients.

TCTAP Award 2016 "TCTAP Best Young Scientist Award"

- » Thursday, April 28, 12:22 PM - 12:30 PM,
- » The Latest Update "Presentation Theater", Level 1

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Hot Abstract

Long-Term Comparison of Percutaneous Coronary Intervention Using Drug-Eluting Stents and Coronary Artery Bypass Grafting for Chronic Total Occlusion Revascularization

There is limited information of clinical outcomes after chronic total occlusion (CTO) revascularization by drug-eluting stent (DES) compared to coronary artery bypass grafting (CABG).



Jae Seok Bae, MD
Asan Medical Center,
Korea

Dr. Jae Seok Bae, Asan Medical Center, Korea, presented the long-term (5-year) outcomes of patients who underwent percutaneous coronary intervention (PCI) using DES versus CABG for CTO revascularization. They identified 883 patients with CTO who underwent PCI using DES (n=484) and CABG (n=399) in Asan Medical Center between January 2005 and May 2010.

The primary end point was a major adverse cardiac event (MACE), which was a composite of death from any cause, myocardial infarction or target vessel revascularization. After adjustment for difference in baseline characteristics, the 5-year incidence of MACE was similar between the two groups (hazard ratio [HR]: 0.80; 95% confidence interval [CI]: 0.51-1.27, $P=0.35$). In

Table 1. Adjusted hazard ratio for clinical outcome

Clinical Outcome		
Adjusted Hazard Ratio for Clinical Outcomes at 5-year after PCI using DES as Compared With After CABG in the Overall Population		
	Adjusted HR (95% CI)	P value
MACE	0.80 (0.51 - 1.27)	0.35
Death	0.67 (0.40 - 1.14)	0.14
Cardiac Death	0.56 (0.30 - 1.06)	0.08
Myocardial Infarction	0.57 (0.11 - 2.99)	0.51
Repeat Revascularization		
Target Vessel Revascularization	1.43 (0.47 - 4.37)	0.53
New Lesion Revascularization	19.79 (2.04 - 192.37)	0.01
Cerebrovascular Event	0.12 (0.02 - 0.7)	0.02
Major Bleeding	0.57 (0.22 - 1.48)	0.24

addition, individual components of the primary endpoint, including death (HR: 0.67; 95% CI: 0.40-1.14, $P=0.14$), myocardial infarction (HR: 0.57; 95% CI: 0.11-2.99, $P=0.51$), and target vessel revascularization (HR: 1.43; 95% CI: 0.47-4.37, $P=0.53$) were not significantly different between the two groups. However, the risk of new lesion revascularization was significantly high (HR: 19.79; 95%CI: 2.04-192.37, $P=0.01$) and the risk of cerebrovascular event was low (HR: 0.12; 95% CI: 0.02-0.7, $P=0.02$) in the DES group (Table 1).

Dr. Bae concluded that for patients with CTO, DES treatment, compared with CABG, showed similar rates of mortality and the combined end point of MACE up to 5 years.

Moderated Abstract Competition II

- » Thursday, April 28, 10:20 AM - 10:30 AM
- » Abstract Zone II, Level 3

Hot Case

Intracoronary Thrombolysis in a Case of Refractory No-Reflex After Very Late Stent Thrombosis



Goutam Datta, MD
Burdwan Medical
College, India

Yesterday, Dr. Goutam Datta from Burdwan Medical College, India, presented a case of refractory no-reflow after stent thrombosis which was finally responsive to intracoronary thrombolysis.

Two years ago, a patient presented with NSTEMI and his coronary angiography revealed a significant lesion in LAD. He was stented with DES (2.75x24 mm) successfully. He was on regular follow up and was getting aspirin, clopidogrel, atorvastatin, beta blocker and ACE inhibitor. He came again with chest pain and hypotension caused by anterior STEMI. He was having ongoing chest pain and was planned for emergent culprit vessel PCI. Coronary angiogram revealed total thrombotic occlusion of LAD again with huge thrombus burden.

Dr. Goutam Datta and his colleagues crossed the lesion by Runthrough floppy guidewire. IVUS showed late mal-apposition of stent struts. They passed aspiration catheter several times. There was no flow. The patient was on abciximab and unfractionated heparin. They dilated the thrombosed stent both by semi-compliant (2.5x15 mm) and

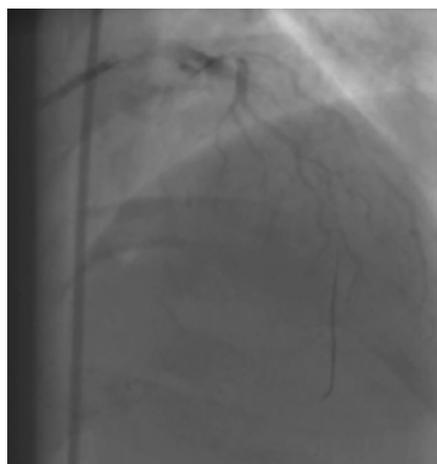


Figure 1. Refractory no-reflow (left), responsive to intracoronary thrombolysis (right)

non-compliant balloon (3x10 mm). There was persistent no-reflow. Then they infused intracoronary nitroprusside and adenosine. Still there was no flow (Figure 1, left). As a last resort, they decided to give intracoronary thrombolysis with (20 mg) tenecteplase. After intracoronary thrombolysis, the patient's chest pain came down and he became stable hemodynamically. One week later, follow-up coronary angiography revealed TIMI-3 flow in LAD (Figure 1, right). Dr. Goutam Datta mentioned that the management of refractory no-reflow is unknown. Repeated use of aspiration catheter may not help.

Intracoronary abciximab, adenosine, nitroprusside, Ca channel blockers may not help.

He concluded that in this case, intracoronary thrombolysis was a last option and was of great help in restoring TIMI-3 flow.

Moderated Complex Case Competition I

- » Thursday, April 28, 9:00 AM - 9:10 AM
- » Case Zone I, Level 3

"TCTAP Best Young Scientist Award"

opens to ALL young interventional cardiologists!



This award is intended to acknowledge, recognize mid-level young clinical investigators whose academic clinical research or case study can lead to the development of cardiovascular medicine.

The award is presented on April 28 during TCTAP conference and the recipient receives a \$5,000 scholarship and certificate of recognition.

Submission Opens on
July 4, 2016

Apply if you

- Have career within 5 years of the start of their fellowship or training period
- Share your own patient care experience with knowledge and understanding in the clinical practice in TCTAP
- Introduce new, advanced solutions to complicated issues in TCTAP

* Applicants who were selected as best abstract/case presenters by the scientific committee in one of the CVRF meetings will get extra points.

Yesterday's Highlights

Glorious Best Presenters from Competition Session



A number of interesting abstracts & cases were submitted from all over the world to TCTAP 2016 this year, and then a few abstracts & cases were selected to be presented in Moderated Oral Competition after being strictly reviewed by the scientific committee. Approximately 300 authors made presentations in each Abstract & Case competition session and only 30 presenters were selected as the Best Presenters by evaluation. Here is the list of the glorious best abstract & case presenters.

Best Abstract Presenter from Abstract Zone

- 1-4. Acute Myocardial Infarction/Acute Coronary Syndrome: **Doo Sun Sim, MD** (Korea)
- 1-5. Acute Myocardial Infarction/Acute Coronary Syndrome: **Mineok Chang, MD** (Korea)
- 1-6. Acute Myocardial Infarction/Acute Coronary Syndrome: **Mineok Chang, MD** (Korea)
- 1-7. DES/BVS: **Nicolas Foin, MD** (France)
- 1-8. DES/BVS: **Do-Yoon Kang, MD** (Korea)
- 1-9. DES/BVS: **Mohd Kamal Mohd Arshad, MD** (Malaysia)
- 2-4. Complex PCI: **Do-Yoon Kang, MD** (Korea)
- 2-5. Complex PCI (CTO): **Se Hun Kang, MD** (Korea)
- 2-6. Complex PCI: **Do-Yoon Kang, MD** (Korea)
- 2-7. Acute Myocardial Infarction/Acute Coronary Syndrome: **Seung-Woon Rha, MD** (Korea)
- 2-8. Imaging & Physiology: **Hyung Yoon Kim, MD** (Korea)
- 2-9. Imaging & Physiology: **Doyeon Hwang, MD** (Korea)

Best Case Presenter from Case Zone

- 1-4. Acute Coronary Syndromes: **Jonathan Gabriel Sung, MD** (Hong Kong, China)
- 1-5. Acute Coronary Syndromes: **Arindam Pande, MD** (India)
- 1-6. Complex PCI: **Mitsunori Mutou, MD** (Japan)
- 1-7. Complex PCI: **Chi-Wei Wang, MD** (Taiwan)
- 1-8. Complex PCI: **Amane Kozuki, MD** (Japan)
- 1-9. Complex PCI: **Chi-Yen Wang, MD** (Taiwan)
- 2-4. Complex PCI: **Rei Fukuhara, MD** (Japan)
- 2-5. Complex PCI: **Yasuto Uchida, MD** (Japan)
- 2-6. Imaging & Physiology: **Cheng Chung Hung, MD** (Taiwan)
- 2-7. Imaging & Physiology: **Chen Wei Huang, MD** (Taiwan)
- 2-8. Complex PCI: **Tsung Yu Ko, MD** (Taiwan)
- 2-9. Complex PCI: **Abdul Raqib Abd Ghani, MD** (Malaysia)
- 3-4. Complex PCI: **Po-Tseng Lee, MD** (Taiwan)
- 3-5. Endovascular Intervention: **Michinao Tan, MD** (Japan)
- 3-6. Endovascular Intervention: **Tatsuya Shiraki, MD** (Japan)
- 3-7. Endovascular Intervention: **I-Ming Chen, MD** (Taiwan)
- 3-8. Complex PCI: **Guo-Shiang Tseng, MD** (Taiwan)
- 3-9. Complex PCI: **Po-Sen Huang, MD** (Taiwan)

19th KCTA Symposium

Annual Conference for Cardiovascular Nurse & Technologist Joint Program with TCTAP 2016

The 19th TCTAP KCTA symposium for nurses and technologists in the cardiovascular field is being held on Level 1 of Endovascular & Structural Heart Theater this year.

The purpose of TCTAP 2016 KCTA symposium is to educate on the recent advances in cardiovascular intervention as well as to share personal experiences and knowledge of the attendants.

This year, Dr. Lee and Dr. Koo will be sharing their professional opinion and clinical significance of "Carotid Artery Stenting; Indication & Technical Issue" and "Physiology Assessment; FFR, CFR, IFR, IMR" in Part I: Featured Lecture 1.

In Part II: Invited Lecturers from China & Japan session, the guest speakers will present and discuss the role of technologists in catheterization laboratory

and functionally integrated platform of a catheterization laboratory. These annual international sessions have been providing a platform for professionals of Korea, China and Japan to interact and grow through the sharing of experiences.

Part II and IV sessions are targeted at nurses and technologists working in the intervention field. Lectures on medications, patient care, new devices and various imaging modalities will provide insight into the recent advances, clinical applications and significance of each topic.

10 KCTA points will be awarded for attending this symposium, which will run from 8:20 AM - 12:40 PM. We look forward to seeing you there.

19th KCTA Symposium

- » Friday, April 29, 8:20 AM - 12:40 PM
- » Endovascular Theater, Level 1

Don't Miss the Call for Science 2017



July 18 (Mon) – November 4 (Fri), 2016

*Only online submission is available via submission website, for more information kindly contact abstract@summitmd.com / case@summitmd.com

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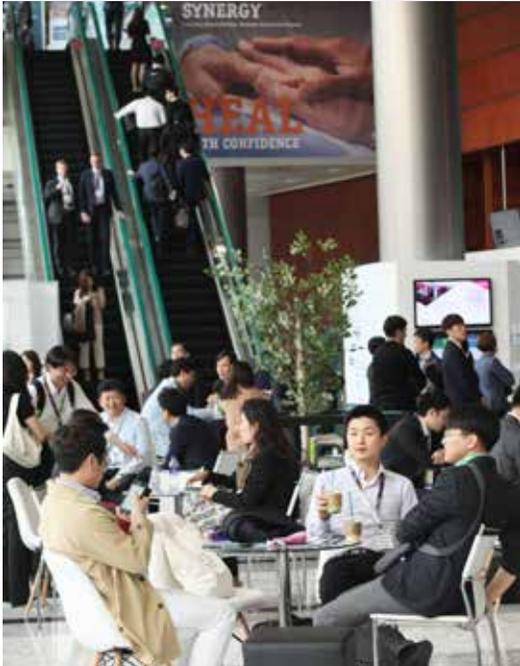


The Voices of TCTAP 2016



"TCTAP is an interactive conference which inspires us with discussions about Asian-based cases and brings innovation to clinical practice in Asia."

“ We'd love to come to the next TCTAP conference! ”





**Thanks to All Editors
Who dedicated their time to
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22nd CARDIOVASCULAR SUMMIT TCTAP 2017

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