# CSI FRANKFURT 2019

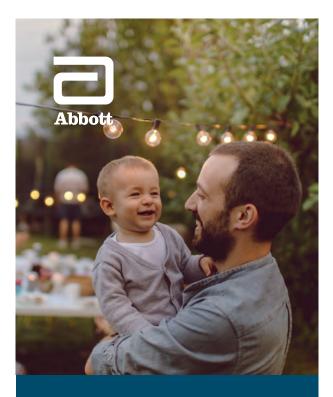
## JUNE 26 – 29, 2019 FRANKFURT, GERMANY







www.csi-congress.org



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#### SCIENTIFIC ABSTRACTS

Overview





#### **GENERAL INFORMATION**

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CSI GENERAL INFORMATION

## i WELCOME TO CSI FRANKFURT 2019

Welcome to Frankfurt – we are really looking forward to sharing the next 4 days with you! The CSI team has worked tirelessly over the past 12 months on what we believe is the strongest educational agenda to date in the 23-year history of CSI – until next year at least!

A key feature of this year's program is the full and half day focus workshops on the most important topics in congenital, structural and valvar heart disease interventions and heart failure. Wednesday will be dedicated to mitral valve interventions, neonatal interventions, device development, paravalvar leak closure and pulmonary artery stenosis. Thursday's focus workshops will feature VSD closure, TAVI and tricuspid valve interventions. Friday's workshops explore PFO and LAA closure, pulmonary valve interventions and coarctation and the workshops conclude with heart failure interventions, ASD and PDA closure on Saturday. You may choose to attend for the full duration of the workshop, or jump from one workshop to the next to meet your specific educational needs! / see leaflet "Pocket guide" for an overview

As always, the program will feature live sessions, many of which will have a minimum of 2 centers transmitting in parallel. **More than 40 scheduled cases will be transmitted from 12 renowned centers across the globe.** Stay tuned on the congress app to see which cases are coming up!



#### THE OFFICIAL MOBILE APP "CSI FRANKFURT 2019"

Now available for download for both Android and Apple devices. Detailed info on page 14

#### A new addition to CSI will be the "Highlight of the

year" awards. We want to celebrate events of the past year that will have an impact on the field, on practice and on patient outlook. Nominations are displayed in a poster exhibition located in the main lecture hall Harmonie and include first-in-mans, trials and study results or approvals. Shortlisted nominations will be discussed in dedicated "highlight of the year" sessions, where we have dispensed with the traditional speaker lectern. We invite all physician attendees of CSI to vote for the winners in each category. Make sure not to miss these sessions – or the award ceremony held during the social dinner!

We would also like to draw your attention to the "Helping the world's hearts" session on Thursday morning. Many of our faculty members dedicate their free time to provide medical care in less developed regions that currently lack the infrastructure for diagnosis and effective treatment of cardiovascular diseases. Please join this session to learn about their efforts as well as CSI's educational activities to improve patient treatment and outlook in Africa – and perhaps to get involved!

#### Thank you for being a part of CSI Frankfurt 2019.

We are passionate about creating a platform for exchanging knowledge. You will learn the latest techniques, see the newest devices and meet the most experienced interventionalists. Above all, be sure to get involved: refine your skills in the training hub, use the opportunity to network with your peers, participate in our discussions, share your thoughts and experiences, ask questions and help us once again to make this the best year yet!

Enjoy CSI!

Sincerely yours, The CSI course directors Horst Sievert, Mario Carminati, Shakeel A. Qureshi

## i DO NOT MISS!



#### **CSI HIGHLIGHT OF THE YEAR AWARDS**

#### Interventional imaging

Wednesday, June 26, 10.20 – 12.30 / Congress theatre,  $2^{\rm nd}$  floor / p. 51

Structural interventions and heart failure treatment Thursday, June 27, 11.10 – 13.35 / Main lecture hall Harmonie, 1st floor / p. 81

#### **Congenital interventions**

Thursday, June 27, 13.45 – 15.45 / Main lecture hall Harmonie,  $1^{\rm st}$  floor / p. 85

#### Valvar interventions

Friday, June 28, 16.35 – 18.30 / Main lecture hall Harmonie,  $1^{\rm st}$  floor / p. 107

We will celebrate highlights in the field of congenital, structural and valvar heart disease interventions and interventional imaging! Nominations include first-in-mans, trials, studies and approvals and feature in a poster exhibition at the back of the main lecture hall.

A shortlist has been selected for interactive discussion during dedicated sessions.Lead by key opinion leaders, faculty will be interviewed rather than presenting traditional lectures from a speaker's desk! The sessions will be accompanied by live cases from experienced operators, featuring cases on bioresorbable occluders and stents, novel heart failure intervention techniques and much more. **Vote for the winner in each category and make sure not to miss the award ceremony at the CSI social dinner on Friday night!** 

#### LIVE + KOL CASE COMPETITIONS

#### Valvar

Wednesday, June 26, 15.50 – 18.30 / Main lecture hall Harmonie,  $1^{\rm st}$  floor / p. 55

#### Congenital

Thursday, June 27, 16.15 – 18.30 / Main lecture hall Harmonie, 1st floor / p. 86

#### Valvar

Friday, June 28, 11.00 – 13.20 / Main lecture hall Harmonie,  $1^{\rm st}$  floor / p. 103

#### Structural

Saturday, June 29, 08.00 – 10.00 / Main lecture hall Harmonie, 1st floor / p. 126

Watch our KOL faculty battle out who had the best approach to the most challenging cases! These sessions will include live transmissions showcasing experienced operators from all over the world!

#### **HELPING THE WORLD'S HEARTS**

Thursday, June 27, 10.00 – 10.30 / Main lecture hall Harmonie, 1st floor

Many of our faculty dedicate their free time to provide medical care in less developed regions that currently lack infrastructure for diagnosis and effective treatment of cardiovascular diseases. Join this session to learn about their efforts as well as CSI's educational activities to improve patient treatment and outlook in Africa – and perhaps to get involved! / p. 79

#### **CONFERENCE WELCOME**

Friday, June 28, 08.00–10.00 / Main lecture hall Harmonie, 1<sup>±</sup> floor Join us on Friday morning in the main lecture hall for the official conference welcome, featuring live transmissions from the CardioVascular Center Frankfurt (CVC) and Fuwai Hospital, Beijing. Chaired by Shakeel A. Qureshi, Mario Carminati, Bharat Dalvi, Hidehiko Hara, Karl-Heinz Kuck, Bushra Rana and Mark Reisman, this is a session not to be missed! / p. 102

#### **KEYNOTE INTERVIEW WITH MICHAEL TYNAN**

Friday, June 28, 10.00 – 10.30 / Main lecture hall Harmonie, 1<sup>st</sup> floor Shakeel A. Qureshi and Bharat Dalvi will lead this year's keynote interview with Michael Tynan – described by Shak as "Innovator in pediatric cardiology. Father of interventional pediatric cardiology in Europe. First to perform fetal cardiac interventions in the world. Last person to interview Fidel Castro." / p. 103

#### **NEIL WILSON'S CHALLENGING CASES**

Saturday, June 29, 07.00-08.00 / Main lecture hall Harmonie, 1st floor

Back by popular demand: Neil Wilson has been a feature of CSI since 1999 and his British sense of humour coupled with serious debate has established this early morning session as a favorite for many regular attendees. Get up early on Saturday, grab some breakfast from the industry exhibition and join Neil in the main lecture hall! / p. 126

#### **CSI ROAD TO THE TOP**

#### Saturday, June 29, 10.30 – 12.30 / Congress theatre, 2<sup>nd</sup> floor

Hear from experienced CSI faculty how they progressed their careers. This session will feature Damien Kenny, Sameer Gafoor, Simon Lam, Eberhard Grube, Stefan Bertog, Allison Cabalka, Shakeel A. Quershi, Gareth Morgan, Matthew Daniels and Mark Reisman. Join them on Saturday for a panel discussion where they reveal their biggest mistakes on the road to the top! / p. 129

#### HILDICK-SMITH DEBATE

Friday, June 28, 12.40 – 13.20 / Congress theatre, 2<sup>nd</sup> floor

The Hildick-Smith debate has been a feature of CSI for many years – surely by now it deserves an entry into Wikipedial This year's topic:

- David Smith: We should only be closing PFO's in the populations described in the randomized trials
- David Hildick: No, there are many patients who will benefit even if they are not exactly belonging to the population enrolled in the trials / p. 110

#### CATH LAB EFFICIENCY SESSION

Saturday, June 29, 12.45 – 14.55 / Congress theatre, 2<sup>nd</sup> floor

Too much to do, too little time? We know what it's like, but make sure to spare two hours for the cath lab efficiency session where faculty will reveal tips and tricks on how to streamline workflow in the cath-lab. The session will be accompanied by live transmissions from Horst Sievert (CardioVascular Center, CVC, Frankfurt, Germany) and Kothandam Sivakumar (The Madras Medical Mission, Chennai, India). / p. 130

#### **DEVICE PARADES**

Thursday, June 27, 16.15 – 18.30 / Spectrum, 1<sup>st</sup> floor / p. 92 Friday, June 28, 12.40 – 13.20 / Illusion 2–3, 2<sup>nd</sup> floor / p. 114

These sessions will include short overview lectures on available devices, which will be displayed at the back of the lecture room. You will get the opportunity to examine and compare the devices close-up. Experienced users will be there to provide further details and answer any questions you may have.

#### **E-POSTER PRESENTATIONS**

Thursday, June 27, 07.00 - 08.00 / Poster area, 2<sup>nd</sup> floor / p. 78 Friday, June 28, 07.00 - 08.00 / Poster area, 2<sup>nd</sup> floor / p. 102

Moderated e-poster sessions will take place on Thursday and Friday morning in the poster area on the 2nd floor. You can visit this area at any time to browse through a record number of over 150 posters – or use the congress app to review them.

#### THE TRAINING HUB

Benefit from valuable hands-on and simulation training in the CSI training hub. Spaces are limited, so make sure to pre-register. Refer to the training hub leaflet for more information about individual workshops. / see leaflet "Training hub" for an overview

## i DO NOT MISS!

#### THE INDUSTRY EXHIBITION

Please take the time to visit our industry partners in the exhibition on the first floor to learn about the latest devices, data and resources available to facilitate your daily practice and improve patient outcomes. / see leaflet "Pocket guide" for an overview



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## i CSI FRANKFURT 2019 CONGRESS APP

The official mobile application for CSI 2019 – now available for download for both Android and Apple devices!



#### WITH THE CONGRESS APP, YOU CAN:

- Search for topics and speakers
- Create a personalised program around the sessions that most interest you
- Receive real-time updates directly to your mobile phone or tablet

Too many interesting sessions at the same time? Do not worry – recorded content of the congress will be available free of charge for CSI attendees on the app.



#### **HOW DO I GET THE APP?**

Head over to Google Play Store or Apple App Store, **search for CSI Frankfurt 2019** and after installation, log in with your M-anage details.



#### TWITTER

Stay up to date at all times: receive real-time updates directly to your mobile phone or tablet via Twitter.

Twitter – @csicongress
 #CSI2019
 #CSIFrankfurt2019

### **FOCUSED LEARNING**

Our program structure features parallel streams at all times so that you can customize your learning experience. Use the congress app to create your own personal program.



Get an overview of the program to help you plan your day

Personal area: Log in with your

M-anage details and access your personal program



Browse content:

1

Search the program by key word, speaker or session type, and add interesting session to your personal program

## i SOCIALIZE AND NETWORK AT CSI



#### **DAILY BREAKFAST**

Don't like eating alone in the hotel breakfast room? We will serve breakfast every morning at 07.00 in the industry exhibition on the 1st floor!

#### **CSI MEET AND RUN**

Thursday, June 27, 19.00 Saturday, June 29, 06.00

Join CSI sports enthusiasts for a quick run around Frankfurt. You will be guided by former Frankfurt resident, Stefan Bertog! Meet at the entrance to the congress center.

#### SOCIAL DINNER

Friday, June 28, 19.30 – 23.00



"Alex" Frankfurt Skyline Plaza Europa Allee 8, 60327 Frankfurt am Main, www.dein-alex.de/frankfurt-skyline-plaza

#### Dress code: casual

Distance from Congress Center: 10 min by walking. We will meet at 19.00 in front of the entrance of the congress center to walk to the dinner location.

#### SOCIALIZE ...

If you are hungry from the CSI run or you enjoy a game of table soccer (foosball for our U.S attendees), head over to the Champions sports bar in the Marriott building (Hamburger Allee 2) across the road from the congress center.

#### We can also recommend:



#### Laube - Liebe - Hoffnung

Authentic seasonal cuisine, meat or fish, as well as vegetarian and vegan dishes.

Pariser Str. 11, 60486 Frankfurt am Main Phone: +49 69 75 84 77 22 E-mail: willkommen@laubeliebehoffnung.de www.laubeliebehoffnung.de

Distance from Congress Center: 1.7 km (20 min by walking, 10 min by taxi)



#### Apfelwein Wagner

Traditional atmosphere of Frankfurt's apple wine culture.

Schweizer Str. 71, 60594 Frankfurt am Main Phone: +49 69 61 25 65 E-mail: info@apfelwein-wagner.com www.apfelwein-wagner.com

Distance from Congress Center: 4 km (12–15 min by taxi)



#### Druckwasserwerk

Sophisticated German gastronomy, an exquisite selection of wines.

Rotfeder-Ring 16, 60327 Frankfurt am Main Phone: +49 69 256 28 77 00 E-mail: info@restaurant-druckwasserwerk.de www.restaurant-druckwasserwerk.de

Distance from Congress Center: 2.5 km (10 min by taxi)

#### SOCIALIZE AND NETWORK 1 AT CSI



#### L'Osteria

Assorted antipasti and salads, as well as a weekly menu with delicious pasta dishes.

Speicherstr. 1, 60327 Frankfurt am Main Reservation under: www.losteria.net/en/reservation www.losteria.net/de/restaurants/restaurant/frankfurtam-main/

Distance from Congress Center: 2.1 km (8 – 10 min by taxi)



CRON am Hafen Restaurant & Vinothek Mediterranean dishes, daily fish, meat and pasta specials and a comprehensive wine selection.

Speicherstr. 39 - 45, 60327 Frankfurt am Main Phone: +49 69 24 00 99 33 E-mail: kontakt@cron-am-hafen.de www.cron-am-hafen.de Distance from Congress Center: 2.1 km (8 – 10 min by taxi)



#### 📰 🔲 Zenzakan

Fine Asian dining.

Taunusanlage 15, 60325 Frankfurt am Main Phone: +49 69 97 08 69 08 Reservation: www.mook-group.de/form/form\_en.php www.mook-group.de/zenzakan Distance from Congress Center:

1.9 km (8 - 10 min by taxi)



#### Daheim im Lorsbacher Thal

Regional, traditional German, Hesse and Frankfurt cuisine, "Hausmannskost"

Grosse Rittergasse 49 - 51, 60594 Frankfurt am Main Phone: +49 69 61 64 59 E-mail: info@lorsbacher-thal.de www.lorsbacher-thal.de

Distance from Congress Center: 4.1 km (15 min by taxi



#### Oosten – Beer Garden

Saisonal, inter-regional, vegetarian with a nice view on the Frankfurt skyline.

Mayfarthstr. 4, 60314 Frankfurt am Main Tel.: +49 69 94 94 25 68 14 Mobil: +49 152 24 48 31 78 E-mail: be@oosten-frankfurt.com www.freigut-frankfurt.com/oosten-restaurant Distance from Congress Center: 6.2 km (20min by taxi)



Paparazzi - Italian Resuarant Italian cuisine.

Mendelssohnstr. 44, 60325 Frankfurt am Main Phone: +49 69 74 25 85 E-mail: ristorante@paparzzi-ffm.de www.paparazzi-ffm.de/index.php/ristorante-paparazzi-2frankfurt-westend

Distance from Congress Center: 1.1, km (5 min by taxi, 10 min by walking)



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\* Melody<sup>™</sup> Transcatheter Pulmonary Valve Study: Post Approval Study of the Original IDE Cohort.



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### **ATTENDEE INFORMATION**

We hope that you will enjoy the conference. Please note the following points of general information:

#### **OPENING HOURS**

Wednesday, June 26, 2019 Thursday, June 27, 2019 Friday, June 28, 2019 Saturday, June 29, 2019 7.00 - 18.30 7.00 - 18.30 7.00 - 18.30 7.00 - 17.00 1

#### **FREE WIFI**

SSID: Congress WiFi Username: CSI62019 Password: CSI62019

#### **STAY UP TO DATE**

Sign up for the CSI newsletter on **www.csi-congress.org** to keep yourself informed about the latest news on CSI.

#### **SCIENTIFIC CONTENT**

Content of CSI 2019 will be available on the CSI website by the end of July. We will e-mail you with further information after the congress. Please ensure that we have your e-mail address when you pick up your badge from the welcome team. All abstracts and cases are available for viewing on the CSI website:

www.csi-congress.org/frankfurt/scientific-content

#### IF YOU REQUIRE FURTHER INFORMATION OR NEED ANY ASSISTANCE PLEASE STOP BY THE REGISTRATION COUNTER.

Thank you for your attention, cme4u GmbH Congress organization





## **KEY ADDRESSES**

#### **CONGRESS VENUE**

Congress Center Frankfurt Ludwig-Erhard-Anlage 1, 60327 Frankfurt, Germany www.congresscenter.de

#### **CONGRESS ORGANIZATION**

cme4u GmbH Congresses, meetings & education Gutleutstr. 322, 60327 Frankfurt, Germany E-mail: info@cme4u.org www.cme4u.org

Inga Sievert Mobil: +49 176 205 528 69

Ivana Veljkovic Mobil: +4915773434029

#### SOCIAL DINNER VENUE ON **FRIDAY JUNE 28, 2019**

Alex Frankfurt, Skyline Plaza Europa-Allee 6, 60327 Frankfurt, Germany www.dein-alex.de

## **UNDER THE AUSPICIES OF ...**



German Cardiac Society



German Society of Paediatric Cardiology



Bundesverband Niedergelassener Kardiologen

## **CERTIFIED BY DGK AND EBAC**

#### **ACCREDITATION CSI FRANKFURT 2019**

- 24 CME credits by the EBAC Board (applied for)
- 24 CME credits by the DGK



The event is accredited by the European Board for Accreditation in Cardiology (EBAC) for CME credits. Each participant should claim only those hours of credit that have actually been spent in the educational activity. EBAC works according to the quality standards of the European Accreditation Council for Continuing Medical Education (EACCME), which is an institution of the European Union of Medical Specialists (UEMS).

#### HOW CAN YOU GET YOUR CERTIFICATE OF ATTENDANCE AND CME CREDITS?

Thank you for attending CSI Frankfurt 2019!

Please keep in mind that due to rules and regulations we can provide your CME credits and certificate only if you have filled in the evaluation form which you will find at www.csi-congress.org/frankfurt/evaluation

As the certificate of attendance will be sent by email, please ensure that your contact details are up to date when you pick up your badge from the welcome team at the registration counter.



The certificate of attendance will be sent by email by July 19, 2019.

## i WE WOULD LIKE TO THANK ...

... the following companies for their support (as of June 13, 2019)



SILVER	AtriCure Bentley InnoMed	Eclipse Medical HeartStitch	NeoChord pfm medical
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#### CardioVascular Center Frankfurt CVC

#### STATEMENT OF PURPOSE

The content of the CME accredited scientific program is for educational purposes only and will not promote any products or services, directly or indirectly. Potential conflicts of interest on part of the organizers, the course directors or the faculty will be disclosed to the audience.

## **i** WHAT IS THE CSI FOUNDATION?

The CSI Foundation is a not-for-profit organisation that has been formed to aid the development of congenital, structural and valvar heart interventions worldwide. Primarily, the CSI Foundation aims to achieve this by encouraging and promoting research in the field and by providing training initiatives and educational opportunities to doctors, technicians and nurses. It supports and promotes global and multidisciplinary collaboration, particularly in regions that currently lack progress and infrastructure for diagnosis and effective treatment. The CSI Foundation is passionate about the interface of clinical medicine and the rapid spreading of ideas, including educational meetings and physician training initiatives.

MEMBERS RECEIVE DISCOUNTED ENTRY TO CSI MEETINGS



#### **WE AIM TO PROVIDE**

- Educational conferences and workshops
- A forum for exchange of information
- Training opportunities for updating practical skills
- Networking opportunities
- Help and advice on research and publication in international journals

#### BECOME A MEMBER AND SUPPORT THE FOUNDATION

All of our activities are made possible with the support of our members, corporate partners, affiliates and private donations. If you are interested in becoming a member please visit our website: **www.csi-foundation.org** 

## VISIT CSI-FOUNDATION.ORG



#### CSI SAN FRANCISCO Nov 01–02, 2019 San Francisco, USA

The meeting is designed for interventional cardiologists, cardiothoracic surgeons, anesthesiologists, EP specialists, imaging specialists, nurses, technicians and any other medical specialty involved in these procedures. With a focus on innovation we will also welcome device companies, engineers, start-ups and venture capitalists.



#### LAA - HOW TO CLOSE THE LEFT ATRIAL APPENDAGE Nov 15 - 16, 2019 Frankfurt, Germany

During this 2-day course you will get an overview on all aspects of this treatment modality. Clinical studies will be covered and we will also demonstrate how to perform the procedure step by step and how to prevent and manage complications. Live case transmissions are a core of this course and will allow direct attendeeoperator interaction to maximize the learning experience.



#### CSI AFRICA

Nov 29 – 30, 2019 Arusha, Tanzania

CSI Africa is a 2-day course designed to give attendees an overview of the most important catheter therapies of congenital, structural and valvar heart disease in children and adults. It is aimed in particular at physicians from the African continent.



#### D-HF DEVICE THERAPIES FOR HEART FAILURE Dec 13 – 14, 2019

#### Paris, France

Innovation is at the forefront of this meeting and our faculty of leading experts and pioneers in the field will provide a comprehensive update on the latest research, trials and clinical practice.

CSIFOUNDATION GENERAL INFORMATION

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#### SCIENTIFIC FACULTY



CSI SCIENTIFIC FACULTY 29

## BOARD OF DIRECTORS CSI CONFERENCE

#### DIRECTORS

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Mario Carminati, MD I.R.C.C.S. Policlinico San Donato Milan, Italy

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**Gareth Morgan, MD** University of Colorado Denver, USA

Jian'an Wang, MD The Second Affiliated Hospital of Zhejiang University School of Medicine Zhejiang, China

#### LOCAL CO-DIRECTORS

Markus Reinartz, MD CardioVascular Center Frankfurt and Herz-Jesu-Krankenhaus Dernbach, Germany

Ilona Hofmann, MD CardioVascular Center Frankfurt CVC Frankfurt, Germany

## LIVE CASE CENTERS CSI CONFERENCE

The scientific program includes over 40 scheduled live cases showcasing skilled operators from all over the world:

CardioVascular Center CVC Frankfurt Frankfurt, Germany Horst Sievert, MD Markus Reinartz, MD Kolja Sievert, MD

Rigshospitalet Copenhagen, Denmark Lars Sondergaard, MD Ole De Backer, MD Gintautas Bielauskas, MD Nikolaj Ihlemann, MD Eberhard Grube, MD

Institut Jantung Negara (National Heart Institute) Kuala Lumpur, Malaysia Mazeni Alwi, MD Hasri Samion, MD Marhisham Che Mood, MD Koh Ghee Tiong, MD Haifa Abdul Latiff, MD

#### University Hospital of Leicester Leicester, United Kingdom Jan Kovac, MD

**Anzhen Hospital Beijing, China** Yujie Zhou, MD

**Fuwai Hospital Beijing, China** Xiangbin Pan, MD The First Affiliated Hospital of Nanjing Medical University Nanjing, China Wei Sun, MD

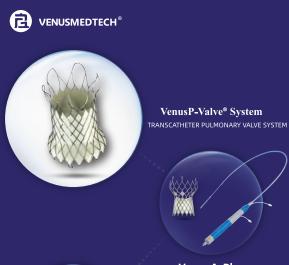
Imperial College Healthcare NHS Trust London, United Kingdom Iqbal Malik, MD Nilesh Sutaria, MD

Our Lady's Children's Hospital, Crumin Dublin, Ireland Damien Kenny, MD Kevin Walsh, MD Khalid AlAlwi, MD

Madras Medical Mission Chennai, India Kothandam Sivakumar, MD

University Hospitals of Cleveland Cleveland, USA Gui Attizzani, MD Cristian Baeza, MD

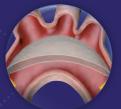
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Behzad Alizadeh, MD Imam Reza University Hospital, Mashhad Medica Mashhad, Iran

**Mohamad Alkhouli, MD** West Virginia University Morgantown, USA

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# 🖌 WEDNESDAY, JUNE 26

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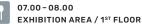


WEDNESDAY, JUNE 26

# CSI Conference

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BREAKFAST



08.00 - 09.50 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> floor

## WHAT'S NEW IN IMAGING

Moderators / Shakeel Qureshi / Alison Duncan Panelists / Xianbao Liu / Ole De Backer / Nilesh Sutaria TrueVue photo-realistic rendering and lighting source technology / Alison Duncan Dynamic CT-based planning of mitral and tricuspid interventions using the LARALAB software / Felix Kreidel HOLOSCOPE-i / Elchanan Bruckheimer HoloLenz - virtual reality for planning of surgeries and interventions / Gry Dahle Echo-fluoro fusion: three situations where it was a huge help and three where it did not help / John Carroll Virtual and real model simulation for intervention in congenital heart disease / Tarique Hussain A new way of fusing X-ray/CT and echo based on echomodels instead of using contrast / Martin Swaans FEops CT-simulations fused with X-ray / Martin Swaans 3mensio: multimodality pre-operative planning for structural heart interventions / Hasan Jilaihawi Siemens 4D ICE / Vaikom Mahadevan EchoPixel / Lee Benson

Disruptive technology: dielectric imaging / Shlomo Ben Haim

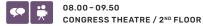
DISCUSSION

## WE WANT TO HEAR YOUR OPINION!



Please complete our survey: www.csi-congress.org/frankfurt/evaluation





## LIVE THEATRE

Moderators / John Carroll / Mario Carminati Panelists / John Thomson / Mohamad Alkhouli / Matthew Daniels

## LIVE CASE TRANSMISSION FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany

09.50 - 10.20 EXHIBITION AREA / 1<sup>st</sup> FLOOR

# TEA AND COFFEE BREAK











10.20 - 12.30 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

# **CSI HIGHLIGHTS OF THE YEAR:** INTERVENTIONAL IMAGING

Moderators / Shakeel Qureshi / Sergio Berti Panelists / Ole De Backer / Elchanan Bruckheimer Facilitator / Tarique Hussain

## LIVE CASE TRANSMISSION FROM

#### Interactive demonstrations of:

- TrueVue / Bushra Rana
- EchoPixel / Lee Benson
- FEops / Martin Swaans

Disruptive technology: dielectric imaging / Shlomo Ben Haim

## Siemens 4D ICE - a review and discussion of different applications

- Tricuspid valve leaflets interventions / Kevin Stiver
- Device closure of atrial septal defect / Vaikom Mahadevan
- Structural heart interventions / Kimberly Chadwell

— DISCUSSION –

## **CAST YOUR VOTE**

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.





PICK UP YOUR LUNCH BOXES



## CHALLENGING CASES FROM RUSSIA

Moderators / Bagrat Alekyan / Alexander Osiev Panelists / Sergey Semitko / Evgeniy Merkulov / Igor Buzaev / Timur Imaev / Prokhor Pavlov Facilitator / Eustaquio Onorato

Bicuspid aortic valve and TAVI: two leaflets but a lot of problems / Timur Imaev

Successful closure of multiple VSDs with one occluder and one plug after twice performed open heart surgery / Alexander Osiev

Non-standard use of foramen ovale in interventional procedures ("02 technique") / Igor Buzaev

Successful "amplatzering" of the AMI-VSD on 4th day / Sergey Semitko

Staged treatment of complex AMI patients: PCI and ventricular septal rupture repair / Prokhor Pavlov

Transcatheter postMI ventricularseptal rupture with Occlutech PIVSD device: first experience in Russia / Evgeniy Merkulov

#### Magistral lecture

State of the art on congenital, structural and valvar heart disease intervention programs in Russia / Bagrat Alekyan

- DISCUSSION -



16.50 - 18.00 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

## CASES YOU HAVE NEVER SEEN BEFORE (CSI AFRICA @ CSI)

Moderators / Shakeel Qureshi / Allison Cabalka Panelists / Sulaiman Lubega / Endale Tefera / Maiy El Sayed

Case 1: stenting obstructed pulmonary venous baffle post senning operation / Maiy El Sayed

Case 2: recanalizing a pulmonary artery / Endale Tefera

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Case 3: pulmonary vein laceration during PMV / Ahmed Ali Suliman

Case 4: device closure of iatrogenic mitral-aortic intervalvular fibrosa pseudoaneurysm / Sherien Abdelsalem Case 5: stent infection following tricuspid infective endocarditis / Habib Gamra

Case 6: how to manage an acute thrombosis of the abdominal aorta? / Habib Gamra

---- DISCUSSION -



15.50 - 18.30 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

# KOL CASE COMPETITION WITH LIVE: VALVAR

Moderators / John Carroll / Vaikom Mahadevan Panelists / Kothandam Sivakumar / Joseph DeGiovanni / Ted Feldman Live center coordinator / Simon Lam

## LIVE CASE TRANSMISSIONS FROM

Minneapolis Veterans Affairs Medical Center, Minneapolis, USA and Cleveland Medical Center, Cleveland, USA

KOL challenge / Eberhard Grube vs. Adam Greenbaum





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WEDNESDAY, JUNE 26

# NEONATAL INTERVENTIONS

NEONATAL INTERVENTIONS PROGRAM 57



10.20 - 12.30 FANTASIE / 2<sup>№</sup> FLOOR

# DUCT DEPENDENT PULMONARY BLOOD FLOW INTERVENTIONS IN NEONATES

Moderators / James Bentham / Diego Porras Panelists / John Thomson / Osama Jaber / Gareth Morgan Facilitator / Dietmar Schranz

Recorded case / John Thomson Patient selection for stenting (or shunting?) / Dietmar Schranz Stenting or shunting – which is better? / James Bentham Techniques for stenting the duct / Kothandam Sivakumar Complications of stenting / Martin Schneider Jailing of the LPA: how much should we worry? / Dietmar Schranz Surgery after stenting the duct / Osama Jaber Treating coronary connections in pulmonary atresia with intact ventricular septum / Martin Schneider

Hybrid ductal stenting vs. Norwood / Caner Salih

### - DISCUSSION -

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12.30 - 12.50 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## PICK UP YOUR LUNCH BOXES



12.50 - 15.20 FANTASIE / 2<sup>ND</sup> FLOOR

## **RVOT STENTING IN NEONATES**

- Moderators / Gareth Morgan / John Thomson Panelists / Boulos Asfour / Demetris Taliotis / Ina Michel-Behnke Facilitator / Shakeel Qureshi
- Indications / Demetris Taliotis Equipment choices: which wire, stent and delivery system to have available / Oliver Stumper Step by step RVOT stenting: recorded case / Gareth Morgan RVOT stenting during cyanotic spells – how safe can we make it? / Demetris Taliotis Complications of RVOT stenting / John Thomson

AY

Surgical techniques (and challenges) following RVOT stenting / Boulos Asfour

Ductal stenting or RVOT stenting – which is better when there's a choice? / Ina Michel-Behnke

Pros and cons of preserving the pulmonary valve / Gareth Morgan

When should a cardiologist ask for a shunt?

Case-based lecture / Giuseppe Santoro

When should a surgeon ask for an RVOT stent?

Case-based lecture / Caner Salih

----- DISCUSSION -



15.20 - 15.50 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## TEA AND COFFEE BREAK



15.50 - 16.50 FANTASIE / 2<sup>ND</sup> FLOOR

# MAJOR PROBLEMS FOR IMAGING IN NEONATES

Moderators / Gareth Morgan / John Thomson Panelists / Kuberan Pushparajah / Hamish Walker / Saleha Kabir Facilitator / Zahid Amin

Decision making in neonatal intervention – all you need is echocardiography! / Saleha Kabir

Decision making in neonatal intervention – what does CT add? / Sujeev Mathur

Decision making in neonatal intervention – what does MRI add? / Hamish Walker

Fusion imaging in neonatal interventions / Mirella Molenschot

- DISCUSSION

# CSI HIGHLIGHTS OF THE YEAR: CAST YOUR VOTE

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.





16.50 - 18.00 FANTASIE / 2№ FLOOR

# PULMONARY VEIN STENOSIS IN NEONATES

Moderators / Henri Justino / Lee Benson Panelists / Diego Porras / Gareth Morgan Facilitator / Martin Schneider

Assessment of pulmonary vein stenosis and changing indications for treatment / Diego Porras

Conventional and cutting balloon angioplasty / James Bentham Stenting of pulmonary veins? / Martin Schneider Drug therapy (stents/balloons/systemic treatment) / Lee Benson Multiple, recurrent interventions – are we adding to the damage? / Henri Justino

- DISCUSSION -



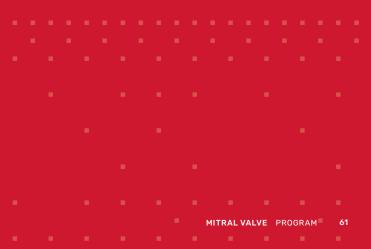


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WEDNESDAY, JUNE 26

# MITRAL VALVE







10.20 - 12.30 SPEKTRUM / 1<sup>st</sup> FLOOR

## MITRAL VALVE INTERVENTION IN MITRAL VALVE STENOSIS

Moderators / Habib Gamra / Gry Dahle Panelists / Kirsten Tolstrup / Ahmed Ali Suliman / Karen McCarthy Facilitator / Mayra Guerrero

Anatomy of the stenotic mitral valve / Karen McCarthy

Mitral stenosis quantification and pitfalls – including assessment in multivalve disease / Nilesh Sutaria

## Intervention for rheumatic mitral stenosis

- How to perform balloon mitral valvuloplasty my 8 most important tips and tricks / Habib Gamra
- Optimal patient selection and long term outcomes / Ahmed Ali Suliman
- Imaging assessment for balloon mitral valvuloplasty
   / Mahimarangaiah Jayaranganath

## Valve in Mitral Annular Calcification – MAC

- Pathophysiology of MAC / tbd
- Imaging assessment for transcatheter mitral valve in MAC / Dee Dee Wang
- Transcatheter approaches to valve in MAC the potential complications (valve migration, LVOT obstruction, paravalvar leaks) / Danny Dvir
- Perfecting the technique open atrial transcatheter approach / Gry Dahle
- Outcomes for valve in MAC: what we know so far / Mayra Guerrero

#### — DISCUSSION –

12.30 - 12.50 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## PICK UP YOUR LUNCH BOXES



12.50 - 15.20 SPEKTRUM / 1<sup>st</sup> FLOOR

## TRANSCATHETER THERAPIES FOR MITRAL REGURGITATION: PART 1

Moderators / Adam Greenbaum / Mayra Guerrero Panelists / Vaikom Mahadevan / Ulf Landmesse Facilitator / Mackenzie Mbai

## Role of imaging

- TEE imaging for patient selection / Felix Kreidel
- Optimal procedure imaging / Mackenzie Mbai

### FMR trial update

 COAPT, Mitra FR, REDUCE FMR: similarities and discrepancies / Martin Orban

### MitraClip: case-based learning

- Step by step (case example) / Mamta Buch
- Leaflet detachment and clip embolization / Stephan von Bardeleben
- Treatment for cardiogenic shock / John Carroll
- Second MitraClip procedure for recurrent MR / Markus Reinthaler
- Case Review: MitraClip / NeoChord / Georg Nickenig

### Update on other mitral repair techniques

- Advanced interventions with NeoChord: leaflet augmentation / Stefano Salizzoni
- Case Review: NeoChord/Cardioband / Georg Nickenig
- NeoChord Transcatheter Program Update / Horst Sievert
- MitralStitch / Cheng Wang
- HeartStitch / Anthony Nobles

#### – DISCUSSION –

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15.20 - 15.50 EXHIBITION AREA / 1<sup>st</sup> FLOOR

# TEA AND COFFEE BREAK



15.50 - 17.20 SPEKTRUM / 1<sup>s™</sup> FLOOR

# TRANSCATHETER THERAPIES FOR MITRAL REGURGITATION: PART 2

Moderators / Gry Dahle / Lars Sondergaard Panelists / Neil Ruparelia / Amar Krishnaswamy Facilitator / Eric Van Belle

# Real world experience (use of TAVI valves in mitral position)

- Mitral valve-in-valve / Amar Krishnaswamy
- Mitral valve in ring / Mayra Guerrero



## Update on selected transcatheter mitral valve replacement technologies in native mitral valve disease

- Sapien M3 early feasibility study / tbd
- Tendyne global feasibility study / Alison Duncan
- Intrepid (APOLLO) / Lars Sondergaard
- Tiara / Lenard Conradi
- Live in a box / Gry Dahle
- Transeptal mitral valve replacement: myth or reality?
   / Eric Van Belle

- DISCUSSION -

# CSI HIGHLIGHTS OF THE YEAR: CAST YOUR VOTE

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.



WEDNESDAY, JUNE 26

# DEVICE DEVELOPMENT

DEVICE DEVELOPMENT PROGRAM 65





10.20 - 12.20 ILLUSION 2 - 3 / 2<sup>ND</sup> FLOOR

## PRECLINICAL: FROM PROTOTYPE TO PRODUCT AND ASSOCIATED FUNDING CHALLENGES

Moderators / Sameer Gafoor / Todd Brinton Panelists / Maarten Ketelaars / Aloke Virmany Finn / Richard Lilly

World full of changes - what are they? / Yuval Binur Patents and pitfalls / Maarten Ketelaars

Animal models: selection and limitations / Aloke Virmani Finn Validation and verification: structure & design / Richard Lilly

## Interview by Stephen Levin

Expectation alignment in the pre-clinical process: entrepreneurs and investors / Nicolas Borenstein

/ Stan Rabinovich

Case example / tbd

Case example CardiacBooster / Daniel van Dort

— PANEL DISCUSSION -



PICK UP YOUR LUNCH BOXES + NETWORKING + POSTERS

13.20 - 15.20 ILLUSION 2 - 3 / 2<sup>ND</sup> FLOOR

## CLINICAL: FROM ANIMALS TO HUMANS AND ASSOCIATED FUNDING CHALLENGES

 Moderators / Sameer Gafoor / Kathleen Marshal

 Panelists / Volker Luecker / Sujith Shetty / Carlos Granada

Evolving regulatory landscapes – Europe / Volker Luecker Evolving regulatory landscapes – USA / Sujith Shetty Evolving regulatory landscapes – China CFDA/Asia/ South America / Carlos Granada

#### Interview by David Cassak

Expectation alignment in the clinical process: entrepreneurs and investors / Charles Taylor / Hanson Gifford / Ted Feldman Case example AMT Medical / Rutger Tulleken

Case example / tbd

PANEL DISCUSSION



15.20 - 15.50 EXHIBITION AREA / 1<sup>st</sup> FLOOR

TEA AND COFFEE BREAK



15.50 - 17.50 ILLUSION 2 - 3 / 2<sup>№</sup> FLOOR

# COMMERCIALIZATION: FROM CLINICAL RESEARCH TO REALITY AND ASSOCIATED FUNDING CHALLENGES

Moderators / Todd Brinton / Stan Rabinovich Panelists / Kathleen Marshall / Mattias Kyhlstedt / Barbara Zwick

Clinical trial execution: meeting the milestones and managing resources / Kathleen Marshall

Reimbursement: managing the process / Mattias Kyhlstedt Collecting data and generating insights during clinical research / Barbara Zwick

Learning from failures / Yuval Binur

#### Interview by Stephen Levin and David Cassak

Expectation alignment in the post-market process: investors and entrepreneurs / Jeff Jump / Florian Ludwig

- Case example EchoPixel / Sergio Aguirre
- Case example Thermopeutix / Ron Solar
- Case example AutoTissue Berlin / Christoph Schmitz

FINANCING FORUM -

17.50 - 18.00 ILLUSION 2 - 3 / 2<sup>ND</sup> FLOOR

## CLOSING REMARKS

/ Sameer Gafoor / Todd Brinton





WEDNESDAY, JUNE 26

# PARAVALVAR LEAK CLOSURE

PARAVALVAR LEAK CLOSURE PROGRAM 69





10.20 - 11.35 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

# BACKGROUND, MORPHOLOGY AND IMAGING OF PARAVALVAR LEAKS

Moderators / Eustaquio Onorato / Thomas Walther Panelists / Rafael Hirsch / Mohamad Alkhouli / Patrick Calvert

Etiology and prognosis of paravalvar leaks after surgical valve replacement / Thomas Walther

How to evaluate aortic paravalvar leaks using echo / Felix Kreidel

How to evaluate mitral paravalvar leaks using echo / Saleha Kabir

How to evaluate paravalvar leaks after TAVI / Nilesh Sutaria

Role of pre-procedure imaging by CT (Locating the defect(s), sizing the defect, planning access route (TSP v TA v retrograde approach) / Dee Dee Wang

Fusion imaging for paravalvar leak closure / Eustaquio Onorato

- DISCUSSION -

11.35 - 12.30 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

# PARAVALVAR AORTIC LEAK CLOSURE: CASE-BASED LECTURES

Moderators / Iqbal Malik / Jonathan Byrne Panelists / Eric Van Belle / Chad Kliger / Rafael Hirsch

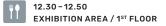
## How to close post-surgical aortic paravalvar leaks

- Bioprosthetic valves / Iqbal Malik
- Mechanical valves / Patrick Calvert
- How to close paravalvar TAVI leaks
  - Post dilation, snaring, valve-in-valve / Eberhard Grube
  - Device closure / Jonathan Byrne

Challenges and complications of aortic paravalvar leak closure / Rafael Hirsch

DISCUSSION -





PICK UP YOUR LUNCH BOXES

12.50 - 15.20 MAIN LECTURE HALL HARMONIE / 1<sup>ST</sup> FLOOR

# PARAVALVAR MITRAL, TRICUSPID AND PULMONARY LEAK CLOSURE

Moderators / Shakeel Qureshi / Alain Fraisse Panelists / Takeshi Arita / Mohamad Alkhouli / Reda Abuelatta

## LIVE CASE TRANSMISSION FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany

### How to close mitral paravalvar leaks

#### **Case-based lectures**

- using retrograde access / Hidehiko Hara
- using transseptal access / Mohamad Alkhouli
- using percutaneous transapical access / Reda Abuelatta

Challenges and complications of mitral paravalvar leak closure / Allison Cabalka

Transcatheter closure of tricuspid or pulmonary para valvular and para annular leaks

/ Alain Fraisse

First prospective trial of Occlutech PLD for paravalvular leak closure in Japan: RESEAL study / Takeshi Arita

PLD registry result / Eustaquio Onorato

Mitral valve leak closure in a patient with mechanical aortic prosthesis / Dabit Arzamendi

#### - DISCUSSION -

# WE WANT TO HEAR YOUR OPINION!



71

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PARAVALVAR LEAK CLOSURE PROGRAM





# PULMONARY ARTERY STENOSIS





12.50 - 15.20 CONRESS THEATRE / 2№ FLOOR

# IMAGING, INDICATIONS FOR TREATMENT AND TREATMENT OPTIONS FOR PULMONARY ARTERY STENOSIS

Moderators / Mario Carminati / Martin Schneider Panelists / Ravindra Pawar / Prakash Ramachandra / Arvind Singh Facilitator / Diego Porras

Morphology of congenital and post-operative pulmonary artery stenosis / Karen McCarthy

Pre-procedural imaging / Vivek Muthurangu

When to treat and when it's better not to – case-based lecture / Mario Carminati

Treatment options: angioplasty, cutting balloons, stents / Peter Ewert

Special considerations in syndromes / Diego Porras

Stent technologies / Martin Schneider

Intraprocedural imaging / Mirella Molenschot

Complex bifurcation stenoses / Oliver Stumper

Hybrid approach / Martin Schneider

Follow-up imaging after intervention / Sujeev Mathur

Recorded case / Mario Carminati

- DISCUSSION -



15.20 - 15.50 EXHIBITION AREA / 1<sup>st</sup> FLOOR

TEA AND COFFEE BREAK

## CSI HIGHLIGHTS OF THE YEAR: CAST YOUR VOTE

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.



15.50 - 16.50 CONRESS THEATRE / 2<sup>ND</sup> FLOOR

# COMPLICATIONS AND CASE PRESENTATIONS OF PULMONARY ARTERY STENOSIS

Moderators / Shyam Sathanandam / Maiy El Sayed Panelists / Anil Singhi / Bharathap A P / Joseph Vettukattil Facilitator / Shabana Shahanavaz

Complications of pulmonary artery stenting / Peter Ewert My most challenging case – treated by balloon / Maiy El Sayed My most challenging case – treated by cutting balloon / Shyam Sathanandam

My most challenging case – treated by stent / Shabana Shahanavaz

- DISCUSSION -



# **THURSDAY, JUNE 27**

## **CSI CONFERENCE**

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## **FOCUS WORKSHOPS**

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**THURSDAY, JUNE 27** 

# CSI Conference

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07.00-08.00 EXHIBITION AREA / 1<sup>st</sup> FLOOR

BREAKFAST

• 07.00 - 08.00 E-POSTER AREA / 2<sup>№</sup> FLOOR

## MODERATED E-POSTER SESSIONS

E-poster session 1: pulmonary circulation, pulmonary valve and RVOT stenting Moderators / Gareth Morgan / David Crossland

E-poster session 2: valve disease 1 Moderators / Eric Van Belle / Patrick Calvert

E-poster session 3: **valve disease 2** Moderators / Marius Hornung / Teiji Akagi

E-poster session 4: coarctation and ducts Moderators / Gianfranco Butera / Suresh Kumar

E-poster session 5: miscellaneous 1 Moderators / James Bentham / Gry Dahle

E-poster session 6: miscellaneous 2 Moderators / Simon Lam / Kolja Sievert

E-poster session 7: challenging cases from Asia Moderators / Henri Justino / Zahid Amin

E-poster session 8: **PFO and other septal defects Moderators** / Mohamad Alkhouli / Jae-Young Choi

- DISCUSSION -



#### 08.00 - 10.10 MAIN LECTURE HALL HARMONIE / 1<sup>ST</sup> FLOOR

## WHAT'S NEW

Moderators / Shakeel Qureshi / Sameer Gafoor Panelists / Saurabh Sanon / Gianluca Rigatelli / Andreas Metzner / Shmuel Banai

## LIVE CASE TRANSMISSION FROM

The First Affiliated Hospital of Nanjing Medical University, Nanjing, China

Congenital coronary artery anomalies: pathophysiology, relation with sudden death and catheter based interventions / Gianluca Rigatelli

New treatment option for HOCM – percutaneous intramyocardial radiofrequency ablation (The Liwen procedure) / Liwen Liu

X3 platform for laser-based ablation of atrial fibrillation / Andreas Metzner

Catheter technique for removal of cardiac tumors / Krzysztof Kaczmarek

Coronary Sinus Reducer for treatment of refractory angina / Shmuel Banai

Endovascular aortic valve plus stent graft conduit / Martin Czerny

TSP Crosser transseptal access device / Federico De Marco Lymphatic interventions to treat PLE and plastic bronchitis after Fontan / Marc Gewillig

B-Growth stent: 1 year follow-up / Oliver Kretschmar

Novel plug for paravalvar leak closure / Wojciech Wojakowski

EggNest radiation protection system / Robert Wilson

Non-invasive intra-cardiac pressure monitoring / Avraham Lorber

- DISCUSSION -

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10.10 - 10.40 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> Floor

## **HELPING THE WORLD'S HEARTS**

Moderators / Shakeel Osman / Shakeel Qureshi Panelists / Allison Cabalka / Nikolaus Haas / Matthias Freund / Sulaiman Lubega

Introduction / Shakeel Osman Heart warriors / Cassius Rayner Healing Hearts (Chain of Hope) / Alan Magee Success story from Uganda / Sulaiman Lubega **Pecha Kucha round** / Allison Cabalka / Matthias Freund / Nikolaus Haas

DISCUSSION

2

10.40 - 11.10 EXHIBITION AREA / 1<sup>st</sup> FLOOR

TEA AND COFFEE BREAK







11.10 – 13.35 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

# CSI HIGHLIGHTS OF THE YEAR: STRUCTURAL

Moderators / Sameer Gafoor / Shakeel Qureshi Panelists / Vaikom Mahadevan / Saurabh Sanon / Matthew Daniels Live center coordinator / Apostolos Tzikas

#### LIVE CASE TRANSMISSIONS FROM

Fuwai Hospital, Beijing, China and CardioVascular Center CVC Frankfurt, Frankfurt, Germany

#### **Heart Failure**

- Daily hemodynamic feedback using the world's first in-heart microcomputer for management of HF patients / Miroslava Stolcova
- Left atrial decompression with Occlutechs AFR / Nikolaus Haas
- NOYA: a new interatrial shunt technology not leaving a device behind / Xiangging Kong

#### LAA Closure

- The new WATCHMAN FLX / tbd
- First in man experience with OMEGATM LAA occluder / Lars Sondergaard

EchoPixel for structural heart defects – a new holography system / Saurabh Sanon

- DISCUSSION

## **CAST YOUR VOTE**

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30. 11.10 - 12.30 CONCLUSIO 2 / 1<sup>ST</sup> FLOOR

## CSI & STRUCTURE CLUB JAPAN JOINT SESSION @ CSI

Moderators / Teiji Akagi / Eustaquio Onorato Panelists / Hidehiko Hara / Jae Young Choi

Identification of high-risk patent foramen ovale associated with cryptogenic stroke: development of a scoring system / Yoichi Takaya

Simultaneous repair of Sinus Valsalva perforation and mitral paravalvular leakage by AMPLATZER Vascular Plug / Hidehiko Hara

"Re-do PVL closure" / Takeshi Arita

latrogenic aortic dissection after TAVI / Shinya Ito

MitraClip for functional mitral regurgitation with absence of leaflets coaptation – zipping by clipping is only one solution? / Takashi Matsumoto

Possible improvement in frailty by successful transcatheter mitral valve repair with a MitraClip / Mike Saji MitraClip procedure for aP2 prolapse severe mitral regurgitation patient after surgical repair with extra small left atrium / Yoshifumi Nakajima

- DISCUSSION -

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11.10 - 13.35 ILLUSION 2 - 3 / 2<sup>№</sup> FLOOR

# INTERVENTION AND SUPPORT IN THE CRITICALLY ILL CHILD

Moderators / Demetris Taliotis / Lee Benson Panelists / Sachin Khambadkone / Marc Gewillig / Vivian Dimas Facilitator / Brian McCrossan

- Surgeons and invasive cardiologists: Becoming equal partners in decision making in intensive care surgical perspective / Caner Salih
- Surgeons and invasive cardiologists: becoming equal partners in decision making in intensive care – interventional perspective / Brian McCrossan
  - Observation or decisive intervention? When to catheterize the struggling patient on ICU? / James Bentham Risk stratification strategies for treatment in the very sick child / Brian McCrossan

Exit angiography and intervention / Lee Benson

Mechanical support devices in congenital heart disease. What's out there? / Vivian Dimas

Percutaneous ECMO cannulation and catheterisation on ECMO / Gareth Morgan

#### Case presentations and round table discussion

- Catheterisation of the post-op neonate / Carrie Herbert
- Catheterisation on ECMO / Salim Javanji

DISCUSSION -



13.35-13.45 EXHIBITION AREA / 1<sup>st</sup> FLOOR

PICK UP YOUR LUNCH BOXES





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13.45–15.45 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

# CSI HIGHLIGHTS OF THE YEAR: CONGENITAL

Moderators / Gareth Morgan / Shakeel Qureshi Panelists / John Thomson / Zahid Amin / Bharat Dalvi Live center coordinator / Allison Cabalka

#### LIVE CASE TRANSMISSIONS FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany and Institut Jantung Negara (National Heart Institute), Kuala Lumpur, Malaysia

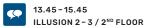
IBS bioresorbable iron stent for PDA stenting / Mazeni Alwi Absnow / tbd AMPLATZER Piccolo: PDA closure for patients as small as 700 g / Shyam Sathanandam

P-Valve: a self-expanding percutaneous pulmonary valve specifically for the native RVOT / Ziyad Hijazi

DISCUSSION

## **CAST YOUR VOTE**

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.



# FROM NEWBORN TO ADULT -AORTIC STENOSIS

Moderators / Ziyad Hijazi / Dietmar Schranz Panelists / Boulos Asfour / Oleg Reich / Jose Diez Facilitator / Angelo Micheletti

Fetal detection and prediction of postnatal treatment / Adam Kolesnik

How imaging can guide treatment choice / Angelo Micheletti

## DEBATE

#### For neonatal aortic stenosis

- Surgery is best / Caner Salih
- Ballooning is best / Gianfranco Butera

Aortic stenosis with borderline left ventricle / Dietmar Schranz Age dependent access selection for balloon dilation / James Bentham

Long-term results of balloon dilation in children / Oleg Reich Treatment of congenital aortic stenosis in adults / Iqbal Malik Is there a role for TAVI in young patients / Jose Diez

#### - DISCUSSION -

15.45 - 16.15 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## TEA AND COFFEE BREAK



### 16.15 - 18.30 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> Floor

# KOL CASE COMPETITION WITH LIVE: CONGENITAL

Moderators / Martin Schneider / Ziyad Hijazi Panelists / Suresh Kumar / Vivian Dimas / Joseph Vettukattil Live center coordinator / Worakan Promphan

## LIVE CASE TRANSMISSIONS FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany and Our Lady's Children's Hospital, Crumlin, Dublin, Ireland

KOL challenge / Gareth Morgan vs. Mario Carminati

DISCUSSION -

CSI

16.15 - 18.30 ILLUSION 2 - 3 / 2<sup>ND</sup> FLOOR

## FROM NEWBORN TO ADULT -CORONARY FISTULAS

Moderators / John Thomson / Shakeel Qureshi Panelists / Gianfranco Butera / Eric Horlick / Felix Berger Facilitator / Sachin Khambadkone

Embryology and morphology of coronary fistula / Karen McCarthy

Which investigations are necessary in asymptomatic coronary fistula? / Felix Berger

Is there ever an indication for primary surgery for coronary fistula? / Boulos Asfour

Indications for interventional treatment of coronary fistula in infancy / James Bentham

Technical aspects of treatment of coronary fistula in infancy / Gianfranco Butera

Indications for interventional treatment of coronary fistula in adults / Bharat Dalvi

Technical challenges of treating coronary fistula in adults / Shakeel Qureshi

Coronary interventionists should not independently treat coronary fistula / Sachin Khambadkone

Pediatric interventionists shouldn't independently treat coronary fistula / Eric Horlick

Case studies / Shakeel Qureshi

DISCUSSION



16.15 - 18.30 FANTASIE / 2<sup>ND</sup> FLOOR

# HEMODYNAMICS FOR INTERVENTIONISTS

 Moderators / Nikolaus Haas / Kuberan Pushparajah

 Panelists / Josef Bis / David Crossland / Daniel McLennan

 Facilitator / Michal Schafer

4D Flow MRI for pressure assessment – should we all update our CVs? /  $\mbox{Michal Schafer}$ 

Hemodynamic assessment in the catheter lab / David Crossland

Exercise catheterisation – unmasking the truth or fantastic thinking? / Matthew Daniels



Pulmonary vascular resistance assessment: catheter, MRI or gut feeling? / Kuberan Pushparajah

Measurements of cardiac shunts in patients with severe pulmonary hypertension using the Innova system / Josef Bis

Minimally invasive cardiac output monitoring during critical interventions / Gareth Morgan

Managed transseptal flow in PH and LV diastolic dysfunction. Are fenestrated devices the answer? / Nikolaus Haas

#### Challenging cases:

- ASD closure in PHTN / Radwa Bedair
- ASD with left ventricular dysfunction / David Crossland
- PDA closure in PHTN / Daniel McLennan

#### Discussion with the experts: the future of routine hemodynamic assessment

Experts / Kuberan Pushparajah / Matthew Daniels / David Crossland

- DISCUSSION -

# CSI HIGHLIGHTS OF THE YEAR: CAST YOUR VOTE

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.



**THURSDAY, JUNE 27** 

# TRANSCATHETER AORTIC VALVE IMPLANTATION (TAVI)

TRANSCATHETER AORTIC VALVE IMPLANTATION PROGRAM 89

11.10 - 11.45 SPEKTRUM / 1<sup>ST</sup> FLOOR

## TAVI VALVE DEGENERATION AND PARAVALVAR LEAK

Moderators / Chad Kliger / David Hildick-Smith Panelists / Kirsten Tolstrup / Xianbao Liu Facilitator / Danny Dvir

TAVI durability, causes of valve degeneration: what we know so far /  $\mathsf{Danny}\,\mathsf{Dvir}$ 

How to diagnose and how to treat TAVI valve thrombosis (by echo and CT) / Chad Kliger

Intermediate and long term follow-up post TAVI, the paravalvar leak is larger than desirable: plug, re-dilate or valve-in-valve / Chad Kliger

- DISCUSSION -

11.45 - 12.40 SPEKTRUM / 1<sup>ST</sup> FLOOR

## NEW FRONTIERS: BICUSPID VALVE

Moderators / Jian'an Wang / Karl-Heinz Kuck / Eberhard Grube Panelists / Antonio Mangieri / Antonio Colombo / Ted Feldman Facilitator / Vijay Iyer

#### **Technical considerations**

- How to evaluate and size the bicuspid valve by CT and echo / Dee Dee Wang
- Hangzhou solution for bicuspid aortic valve
   / Jian'an Wang
- This is how I treat bicuspid valves with a selfexpanding valve / Xianbao Liu
- This is how I treat bicuspid valves with mechanical expansion valve / Eberhard Grube
- This is how I treat bicuspid valves with a balloon
   expandable valve / Vijay Iyer

#### - DISCUSSION -

# WE WANT TO HEAR YOUR OPINION !



Please complete our survey: www.csi-congress.org/frankfurt/evaluation

90 PROGRAM TRANSCATHETER AORTIC VALVE IMPLANTATION

12.40 - 13.35 SPEKTRUM / 1<sup>ST</sup> FLOOR

# NEW FRONTIERS: PURE NATIVE VALVE REGURGITATION, NEW TECHNIQUES FOR VALVE-IN-VALVE AND TAVI IN PATIENTS WITH CONGENITAL AORTIC STENOSIS

Moderators / David Hildick-Smith / Karl-Heinz Kuck Panelists / Jian'an Wang / Maurizio Taramasso / Oscar Mendiz Facilitator / Mark Turner

How to treat pure aortic regurgitation with the currently available non dedicated TAVI valves / David Hildick-Smith Bioprosthetic valve fracture: when and how? / Danny Dvir BASILICA: when and how? / Danny Dvir TAVI in congenital patients / Mark Turner TAVI in non-calcified thick leaflet aortic stenosis / Xi Su

– DISCUSSION –

13.35 - 13.45 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## PICK UP YOUR LUNCH BOXES

13.45-15.45 SPEKTRUM / 1<sup>ST</sup> FLOOR

## TAVI CHALLENGING CASES AND CLINICAL UPDATES

Moderators / Antonio Colombo / Amar Krishnaswamy Panelists / Eric Horlick / Hendrik Ruge / Wojciech Wojakowski Facilitator / Kirsten Tolstrup

My worst TAVI complications / Antonio Colombo

Recorded case / tbd

#### Clinical trial updates

- TAVI for asymptomatic patients (EARLY-TAVI)
   / Wojciech Wojakowski
- TAVI in patients with moderate AS and reduced left ventricular systolic function (UNLOAD) / Kirsten Tolstrup
- TAVI for low risk patients / Lars Sondergaard



Evolut versus Sapien S3 SOLVE-TAVI / Holger Thiele Lotus Edge – a program update / Vijay Iyer

DISCUSSION -

15.45 - 16.15 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## TEA AND COFFEE BREAK

16.15 - 18.30 SPEKTRUM / 1<sup>ST</sup> FLOOR

## TAVI TECHNOLOGY - DEVICE PARADE

Moderators / Danny Dvir / Sameer Gafoor Panelists / Holger Thiele / Oscar Mendiz / Marek Grygier Facilitator / Lars Sondergaard

#### What differentiates this valve design from the others

- Evolut PRO / Eberhard Grube
- Sapien 3 / tbd
- Meridian valve / Robert Wilson
- Centera / tbd
- Medtronic TAVI pipeline / Eberhard Grube
- Lotus Edge TH / Alper Oener
- Acurate Neo / Alper Oener
- Portico / Lars Sondergaard
- VenusA plus / Jian'an Wang

#### Ancillary technology

- InSeal vascular closure / Hendrik Ruge
- PerQseal / Michael Laule
- Aortic valve remodeling therapy (Leaflex performer)
   / David Hildick-Smith
- Shockwave use for TAVI access in heavily calcified iliacs / Miroslava Stolcova

- DEVICE PARADE - HANDS-ON

# CSI HIGHLIGHTS OF THE YEAR: CAST YOUR VOTE

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.



**THURSDAY, JUNE 27** 

# VSD CLOSURE AND AORTIC ROOT PERFORATION





 I11.10 - 12.40

 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

## IMAGING THE VSD

Moderators / Mario Carminati / Worakan Promphan Panelists / Mirella Molenschot / Gianfranco Butera / Karen McCarthy Facilitator / Elchanan Bruckheimer

## LIVE CASE TRANSMISSION FROM

Our Lady's Children's Hospital, Crumlin, Dublin, Ireland

New international classification system for VSDs / Angelo Micheletti pmVSD - defining boundaries, conduction system and morphology of the exit into the RV / Karen McCarthy What can CT and MRI offer over echo for decision making and case planning? / Kuberan Pushparajah Has 3D printing for VSD closure got any clinical benefit over modern imaging interfaces? / Claudio Capelli

- DISCUSSION -

12.40 - 13.35 **CONGRESS THEATRE / 2ND FLOOR** 

# INTERVENTIONAL PMVSD **CLOSURE - 20 YEARS LATER** AND STILL LEARNING?

Moderators / Alain Fraisse / Shakeel Qureshi Panelists / Do Nguyen Tin / Worakan Promphan / Allison Cabalka Facilitator / James Bentham

Should excellent surgical results stifle the development of interventional VSD closure? / Caner Salih

Why we are better at this in Asian countries? / Worakan Promphan

Why we are worse at this in Western countries? / Gareth Morgan

Retrograde closure of pmVSD: easier and safer? / Alain Fraisse

Heart block, tricuspid and aortic valve problems 1998 to 2018 - is there a real difference? / James Bentham

DISCUSSION -



## PICK UP YOUR LUNCH BOXES



13.45-15.45 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

# DEVICE CHOICE AND DEVELOPMENT FOR PMVSD

Moderators / Mario Carminati / Worakan Promphan Panelists / Bagrat Alekyan / Dhitabrata Das / Felix Berger Facilitator / Kothandam Sivakumar

### LIVE CASE TRANSMISSION FROM

Our Lady's Children's Hospital, Crumlin, Dublin, Ireland

Looking back – what mistakes have we made? / Martin Schneider

Looking forward – can past mistakes guide future devices? / Mario Carminati

Matching anatomy to device – developing a clinical algorithm? / Kothandam Sivakumar

Reviewing the evidence: is the heart block problem already a thing of the past? / Lee Benson

Development of biodegradable devices for pmVSD closure / Cheng Wang

Challenging VSD closure / Jean Villareal

Experience with pfm medical devices for VSD closure / Robert Sabiniewicz

- DISCUSSION -

2 15.45 - 16.15 EXHIBITION AREA / 1<sup>ST</sup> FLOOR

## TEA AND COFFEE BREAK

# WE WANT TO HEAR YOUR OPINION!



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## POST-MYOCARDIAL INFARCTION VSD

Moderators / Eustaquio Onorato / Adam Greenbaum Panelists / Mark Turner / Dabit Arzamendi / Amar Krishnaswamy Facilitator / Jean Villareal

3 case examples of catheter closure / Mark Turner Results of transcatheter post-MI VSD closure – review of the literature / Mark Turner

When one device is not big enough – reach for the BASSINET / Adam Greenbaum

Transseptal, transmitral approach / Dabit Arzamendi

A new device for post myocardial infarction VSD closure: initial experience / Eustaquio Onorato

#### - DISCUSSION -



17.25 - 18.30 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

## **AORTIC ROOT PERFORATION**

Moderators / Matthew Daniels / Eustaquio Onorato Panelists / Mahimarangaiah Jayaranganath / Dabit Arzamendi Facilitator / Karen McCarthy

### LIVE CASE TRANSMISSION FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany

The morphology of ruptured sinus of Valsalva / Karen McCarthy

Device closure of ruptured sinus of Valsalva / Mahimarangaiah Jayaranganath

Aortic root perforation after TAVI – case-based lecture / Kolja Sievert

#### — DISCUSSION —

# CSI HIGHLIGHTS OF THE YEAR: CAST YOUR VOTE

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.



**THURSDAY, JUNE 27** 

# TRICUSPID VALVE REPAIR AND REPLACEMENT





11.10 - 13.35 FANTASIE / 2<sup>ND</sup> FLOOR

# TRICUSPID VALVE ANATOMY, SURGERY, IMAGING, PHYSIOLOGY AND REPAIR

Moderators / Rochus Voeller / Martin Swaans Panelists / Stephan von Bardeleben / Maurizio Taramasso / Christoph Hammerstingl Facilitator / Gry Dahle

Conventional surgical tricuspid repair and replacement: outcomes and challenges from a surgeon's perspective / Rochus Voeller

Tricuspid valve imaging using TEE and ICE / Martin Swaans Tricuspid valve imaging using CT / Dee Dee Wang

MitraClip for tricuspid intervention: state of current evidence / Christoph Hammerstingl

How to determine if MitraClip is suitable for the tricuspid valve? / Stephan von Bardeleben

4tech: technology and results / Maurizio Taramasso How to determine if 4tech is suitable for the tricuspid valve? / Martin Swaans

Mistral / Yoni Ben-Zvi

Cardioband / tbd

Millipede / Eberhard Grube

- DISCUSSION -

13.35 - 13.45 EXHIBITION AREA / 1<sup>ST</sup> FLOOR

PICK UP YOUR LUNCH BOXES

## WE WANT TO HEAR YOUR OPINION !



Please complete our survey: www.csi-congress.org/frankfurt/evaluation

98 PROGRAM TRICUSPID VALVE REPAIR AND REPLACEMENT



13.45 - 15.45 FANTASIE / 2<sup>ND</sup> FLOOR

## TRICUSPID VALVE REPLACEMENT

Moderators / Gry Dahle / Maurizio Taramasso / Martin Swaans Panelists / Fang-Lin Lu / Giora Weisz / Rochus Voeller Facilitator / Sameer Gafoor

Navigate / Maurizio Taramasso TriSol / Giora Weisz LuX valve / Fang-Lin Lu Recorded case / Rochus Voeller

### ROUND-TABLE DISCUSSION 3 patients with severe tricuspid valve insufficiency: which device is suitable?

/ Sameer Gafoor / Martin Swaans / Rochus Voeller

---- DISCUSSION -----



# FRIDAY, JUNE 28

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**FRIDAY, JUNE 28** 

# CSI Conference

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**EXHIBITION AREA / 1ST FLOOR** 

BREAKFAST

07.00-08.00 E-POSTER AREA / 2ND FLOOR

## MODERATED E-POSTER SESSIONS

E-poster session 1: pulmonary circulation Moderators / Damien Kenny / Mario Carminati

E-poster session 2: valve disease Moderators / Jennifer Franke / Hidehiko Hara

E-poster session 3: septal defects (ASD) Moderators / Marius Hornung / Teiji Akagi

E-poster session 4: coarctation and ducts Moderators / Bharat Dalvi / John Breinholt

E-poster session 5: miscellaneous 1 Moderators / Matthew Daniels / Allison Cabalka

E-poster session 6: miscellaneous 2 Moderators / Joseph De Giovanni / Stefan Bertog

E-poster session 7: challenging cases from Asia Moderators / Ziyad Hijazi / John Thomson

E-poster session 8: LAA Moderators / Karen McCarthy / Patrick Calvert

E-poster session 9: septal defects (VSD) Moderators / Eustaguio Onorato / Worakan Promphan

- DISCUSSION -



08.00-10.00 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

# **CONGRESS WELCOME WITH LIVE** AND KEYNOTE LECTURE

Moderators / Shakeel Qureshi / Bharat Dalvi Panelists / Mario Carminati / Saibal Kar / Karl Heinz Kuck / Hidehiko Hara / Bushra Rana Live center coordinator / Stefan Bertog

### LIVE CASE TRANSMISSIONS FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany and Fuwai Hospital, Beijing, China



Welcome on behalf of the course directors / Shakeel Qureshi

CSI out of the box lecture: interventional therapy in veterinary medicine / Matthias Schneider

CSI out of the box: do you know what "Mokita" means? / Tilo Koebel

## KEYNOTE LECTURE Exciting developments in the field of interventional cardiology:

- Looking back / Michael Tynan
- Looking forward / Eberhard Grube

DISCUSSION -

**\$** 

MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

## **CSI INTERVIEW**

10.00 - 10.30

Interview with Michael Tynan Interviewers / Shakeel Qureshi / Bharat Dalvi



## TEA AND COFFEE BREAK



11.00 - 13.20 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

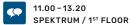
## KOL CASE COMPETITION WITH LIVE: VALVAR

Moderator / Danny Dvir Panelist / Nalan Schnelle Live center coordinator / Jennifer Franke

### LIVE CASE TRANSMISSIONS FROM

Anzhen Hospital, Beijing, China and Rigshospitalet, Copenhagen, Denmark and University Hospital of Leicester, Leicester, United Kingdom

KOL challenge / Nicolas Van Mieghem vs. Sameer Gafoor



# HYPERTROPHIC CARDIOMYOPATHY

Moderators / Hubert Seggewiss / Joseph DeGiovanni Panelists / Gry Dahle / Stefan Bertog / Karl-Heinz Kuck / Liwen Liu Facilitator / Martin Swaans

Imaging of hypertrophic cardiomyopathy / Martin Swaans Surgical myectomy: technique and results / Gry Dahle

#### Alcohol septal ablation

- My 8 most important tips and tricks / Hubert Seggewiss

- Review of the data / Stefan Bertog

Endocardial septal ablation in adults and children / Joseph DeGiovanni

The Liwen procedure: transapical transseptal ablation / Liwen Liu

MitraClip in HOCM / Karl-Heinz Kuck

Recorded case / Liwen Liu

#### - DISCUSSION -



13.20-13.30 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## PICK UP YOUR LUNCH BOXES



13.30 - 14.40 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

# LIVE THEATRE: VALVAR

Moderators / Shakeel Qureshi / Danny Dvir Panelists / Ted Feldman / Mayra Guerrero Live center coordinator / Allison Cabalka

### LIVE CASE TRANSMISSIONS FROM

University Hospital of Leicester, Leicester, United Kingdom and Rigshospitalet, Copenhagen, Denmark

DISCUSSION -



 14.40 - 16.05

 MAIN LECTURE HALL HARMONIE / 1<sup>ST</sup> FLOOR

# LIVE THEATRE: STRUCTURAL/ VALVAR

Moderators / Shakeel Qureshi / Danny Dvir Panelists / Stefan Bertog / Adam Greenbaum Live center coordinator / Simon Lam

### LIVE CASE TRANSMISSIONS FROM

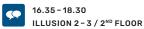
CardioVascular Center CVC Frankfurt, Frankfurt, Germany and Imperial College Healthcare NHS Trust, London, United Kingdom

— DISCUSSION —



16.05 - 16.35 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## TEA AND COFFEE BREAK



## ACCESS TO THE HEART

Moderator / Adam Greenbaum Panelists / Nalan Schnelle / Rochus Voeller / Vijay Iyer Facilitator / Mohamad Alkhouli

Transcaval access: suitability, step-by-step, tips and tricks, complications, outcomes / Adam Greenbaum Subclavian access: suitability, step-by step, tips and tricks, complications, outcomes / Rodney De Palma Transcarotid access:suitability, step-by-step, tips and tricks, complications, outcomes / Vijay Iyer

Right atrial access / tbd

Transhepatic access / Adam Kolesnik

Transapical access and closure: suitability, step-by-step, tips and tricks, complications, outcomes / Rochus Voeller Suture-based trans-apical access and closure device / Anthony Nobles

A step-by-step approach for large-bore percutaneous axillary access / Mohamad Alkhouli

Round table discussion: three cases / Vijay Iyer / Stefan Bertog / Mohamad Alkhouli

#### ---- DISCUSSION -

CSICONFERENCE PROGRAM 105







16.35 – 18.30 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

# CSI HIGHLIGHTS OF THE YEAR: VALVAR

Moderator / Sameer Gafoor Panelists / Tanja Rudolph / Martin Swaans / Joseph DeGiovanni Live center coordinator / Stefan Bertog

LIVE CASE TRANSMISSION FROM Rigshospitalet, Copenhagen, Denmark

#### Low risk TAVI

- Partner 3 / tbd
- Evolut / Martin Swaans

Jena Valve / Tanja Rudolph Tricuspid valve: LuX valve / Fang-Lin Lu Scatter radiation protection for all / Robert Wilson FIM experience with Leaflex / David Hildick-Smith

\_\_\_\_ DISCUSSION \_\_

## **CAST YOUR VOTE**

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.



16.35 - 18.30 FANTASIE / 2<sup>ND</sup> FLOOR

# **EMBOLIC PROTECTION**

Moderators / Karl-Heinz Kuck / Eric Horlick Panelists / Giora Weisz / Ulrich Schaefer / Vaikom Mahadevan Facilitator / Nicolas Van Mieghem

Stroke after structural cardiac interventions: incidence, definition and etiology / Eric Horlick

### DEBATE

#### Embolic protection

- Should be used in all TAVI cases / Nicolas Van Mieghem
- Should be used in selected cases / tbd

Captis full body embolic protection during TAVI / Giora Weisz

Sentinel / Stephan Haussig

Triguard / Abhijeet Dhoble

ProtEmbo protection system / Nikos Werner

DISCUSSION -





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**FRIDAY, JUNE 28** 

# **PFO CLOSURE**





11.00 - 12.40 CONGRESS THEATRE / 2ND FLOOR

#### **IMAGING THE PFO**

Moderators / Matthew Daniels / Mark Turner Panelists / Jae Kwan Song / Karen McCarthy / Antigoni Deri Facilitator / Lucy Eun

LIVE CASE TRANSMISSION FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany

Atrial septum development and anatomy / Adam Kolesnik Intracardiac ECHO / Allison Cabalka 3D phenotypes / Bushra Rana Assessing for shunts (diagnosis, pitfalls) / Lucy Eun Systematic TEE approach to understanding morphology / Antigoni Deri Angiographic assessment / Kolja Sievert PFO shunt size in 300 consecutive patients / Matthew Daniels

- DISCUSSION

12.40 - 13.20 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

## DECISIONS AND CONTROVERSIES IN PFO CLOSURE

Moderators / John Carroll / Eric Horlick Panelists / David Hildick-Smith / Mark Turner / Marek Grygier Facilitator / Matthew Daniels

#### HILDICK-SMITH DEBATE

- We should only be closing PFO's in the populations described in the randomized trials / David Smith
- No, there are many patients who will benefit even if they are not exactly belonging to the population enrolled in the trials / David Hildick
- Cryptogenic stroke patients above 65 years of age / Ulrich Schaefer
- PFO clinic with neurologists: case examples of optimizing patient selection / John Carroll

- DISCUSSION



#### 13.20 - 13.30 EXHIBITION AREA / 1<sup>st</sup> FLOOR

PICK UP YOUR LUNCH BOXES



13.30-14.40 CONGRESS THEATRE / 2<sup>№</sup> FLOOR

## **CHALLENGING PFO CLOSURE**

Moderators / Mario Carminati / Gianfranco Butera Panelists / Mark Turner / Gianluca Rigatelli / David Hildick-Smith Facilitator / John Carroll

#### LIVE CASE TRANSMISSION FROM

Imperial College Healthcare NHS Trust, London, United Kingdom

Anatomy I have struggled with in the lab / Mark Turner Complications of PFO closure and residual shunts – case-based lecture / Franz Kleber How much should we worry about AF? / John Carroll

How to manage challenging PFO cases with the Occlutech PFO Occluder / Tobias Zeus

#### DISCUSSION -



14.40 - 16.05 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

## PFO CLOSURE DEVICES AND PFO INDICATIONS

Moderators / David Hildick Smith / John Thomson Panelists / Demetris Taliotis / Marius Hornung Facilitator / Roel Snijder

#### LIVE CASE TRANSMISSION FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany

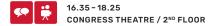
Reasons to use an Amplatzer device / Mario Carminati Reasons to use a Gore device / John Thomson Reasons to use an Occlutech device / Roel Snijder Reasons to use a Lifetech device / Norbert Klein Reasons to use a Noblestitch / Anthony Nobles Carag Bioresorbable Septal Occluder – 2 year results / Kolja Sievert



16.05 – 16.35 EXHIBITION AREA / 1<sup>st</sup> FLOOR

TEA AND COFFEE BREAK





## OTHER INDICATIONS FOR PFO CLOSURE

Moderators / David Hildick Smith / Eustaquio Onorato Panelist / Demetris Taliotis Facilitator / Mark Turner

#### LIVE CASE TRANSMISSION FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany

Platypnoea orthodeoxia / Rodney De Palma Coronary embolus / Franz Kleber Migraine / David Hildick-Smith Diving / Mark Turner PFO closure in children / Keyhan Sayadpour

#### DEBATE Should we be moving towards primary prevention?

- For / David Hildick-Smith
- Against / John Carroll

---- DISCUSSION -----

## CSI HIGHLIGHTS OF THE YEAR: CAST YOUR VOTE

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.



**FRIDAY, JUNE 28** 

# PULMONARY VALVE IMPLANTATION

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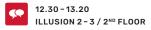
11.00 - 12.30 ILLUSION 2 - 3 / 2<sup>ND</sup> FLOOR

## IMAGING THE PULMONARY VALVE

Moderators / Damien Kenny / Mario Carminati Panelists / Johannes Nordmeyer / Francesca Pluchinotta / Vivek Muthurangu Facilitator / Tarique Hussain

When is pulmonary valve implantation indicated clinically? / Mario Carminati RVOT and RV: CT and MRI evaluation / Vivek Muthurangu 3D printing in planning / Francesca Pluchinotta Intraprocedural imaging / Michiel Voskuil Image-guided computation and modelling for pulmonary valve replacement / Tarique Hussain Matching the valve to the patient / Johannes Nordmeyer / Damien Kenny

- DISCUSSION -



## NEW PULMONARY VALVES -DEVICE PARADE

Moderators / Shakeel Qureshi / Allison Cabalka Panelists / Sachin Khambadkone / Stephan Schubert Facilitator / Damien Kenny

Harmony / Matthew Gillespie Venus P-Valve / Worakan Promphan Pulsta / Gi Beom Kim

DEVICE PARADE



13.20 - 13.30 EXHIBITION AREA / 1<sup>st</sup> FLOOR

PICK UP YOUR LUNCH BOXES

13.30 - 14.50 ILLUSION 2 - 3 / 2<sup>ND</sup> FLOOR

## UPDATE ON CLINICAL TRIALS AND A GLIMPSE INTO THE FUTURE OF PULMONARY VALVE IMPLANTATION

Moderators / Muthukumaran Chinnasamy / Worakan Promphan Panelists / Marc Gewillig / Johannes Nordmeyer Facilitator / Nikolaus Haas

Long term results of Melody valve / Johannes Nordmeyer Long term results of Sapien valve / Nikolaus Haas The risk of bacterial endocarditis after percutaneous pulmonary valve implantation – a metaanalysis / Nikolaus Haas

Initial experience with Harmony valve / Matthew Gillespie Experience with Venus valve / Worakan Promphan Initial experience with Pulsta valve / Gi Beom Kim Tissue engineered valves for the pulmonary position / Damien Kenny

- DISCUSSION -

14.50 - 16.05 ILLUSION 2 - 3 / 2<sup>№</sup> FLOOR

## TIPS AND TRICKS FOR PULMONARY VALVE IMPLANTATION

Moderators / Shakeel Qureshi / Damien Kenny Panelists / Michael Angtuaco / Zahid Amin / Diego Porras Facilitator / Allison Cabalka

#### My 7 most important tips and tricks for implanting

- Melody valve / Sachin Khambadkone
- Sapien valve / Peter Ewert
- Venus valve / Shakeel Qureshi
- Hybrid approach for transcatheter valve implantation / Michael Angtuaco

Complex transcatheter pulmonary valve cases / Zahid Amin Intentional fracture of bioprosthetic valve rings – what are the risks and benefits and how do the acute and short term outcomes compare to surgical revision? / Diego Porras

How to manage complications in the catheter lab / Allison Cabalka

- DISCUSSION -





**FRIDAY, JUNE 28** 

# COARCTATION



13.30 - 14.55 SPEKTRUM / 1<sup>ST</sup> FLOOR

## COARCTATION IMAGING -USING NEW TECHNOLOGIES

Moderators / Sebastian Goreczny / Vivek Muthurangu Panelists / Michiel Voskuil / Karen McCarthy / Francesca Pluchinotta Facilitator / Sujeev Mathur

Aortic coarctation morphology in different age groups / Karen McCarthy

Assessment prior to intervention / Sujeev Mathur

Post-procedural assessment methods / Vivek Muthurangu

Planning intervention based on multimaging and 3D printing / Francesca Pluchinotta

3DRA – fusion imaging in catheter lab / Sebastian Goreczny Recorded case / Mirella Molenschot

DISCUSSION -

14.55 - 16.05 SPEKTRUM / 1<sup>ST</sup> FLOOR

## ANGIOPLASTY / STENTING IN COARCTATION

Moderators / Worakan Promphan / Gianfranco Butera Panelists / Mahimarangaiah Jayaranganath / John Breinholt / Mirella Molenschot Facilitator / Stefan Schubert

Different stents for use in coarctation / Stefan Schubert Stenting in complex aortic coarctation – tips and tricks / Marc Gewillig

BeGraft stent in aortic coarctation: feasibility and early outcomes / Worakan Promphan

Transverse aortic arch stenting – tips and tricks / Massimo Chessa

- Techniques for stenting in aortic atresia tips and tricks / Gianfranco Butera
  - Middle aortic syndrome treatment / Worakan Promphan

- DISCUSSION -



16.05 - 16.35 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## TEA AND COFFEE BREAK

118 PROGRAM COARCTATION

16.35 - 18.30 SPEKTRUM / 1<sup>ST</sup> FLOOR

#### IMPLICATIONS OF TREATING AORTIC COARCTATION

Moderators / Mario Carminati / Bharat Dalvi Panelists / Thomas Krasemann / Massimo Chessa / Manuel Pan Facilitator / Martin Schneider

Balloon dilation vs stenting in different age groups / Martin Schneider

Treatment of aneurysms after previous balloons, stents or surgery / Bharat Dalvi

Late redilation of stents in coarctation / Manuel Pan

Managing complications of coarctation stenting / Massimo Chessa

Does treatment in adults impact on long-term results / Peter Ewert

Stent grafts / Mark Turner

BeGraft for aortic stenting – clinical trial results / Elchanan Bruckheimer

BeGraft Aorta – tips and tricks / Michiel Voskuil

Getting out of difficult situations: balloon tear / Bharat Dalvi

DISCUSSION -

## CSI HIGHLIGHTS OF THE YEAR: CAST YOUR VOTE

Return your voting slip to the ballot boxes located at the registration desk or in the main lecture hall (Harmonie) by Friday, 18.30.





**FRIDAY, JUNE 28** 

# LAA CLOSURE



11.00 - 12.05 FANTASIE / 2№ FLOOR

## THE EVIDENCE FOR LAA CLOSURE AND EMERGING INDICATIONS

Moderators / Mohamad Alkhouli / Ignacio Cruz Gonzalez Panelists / Edip Gurol / Ulf Landmesser / Oscar Mendiz

Update on Watchman trials / Ignacio Cruz Gonzalez Update on Amulet trials / Ulf Landmesser When should the LAA be closed according to guidelines and recommendations / Patrick Calvert Using the Big Data approach to identify suitable patients for LAAC / Olaf Goeing **New indications and approaches to explore** 

- Should LAA closure be performed routinely in TAVI patients with atrial fibrillation? / Amar Krishnaswamy
- Ablation combined with LAA ligation: the aMAZE trial, rational, design and update / Randall Lee

Patient selection for left atrial appendage closure: don't wait for the brain bleed / Edip Gurol

Hybrid approach for the treatment of AF with simultaneous closure of the LAA / Syed Ahsan

---- DISCUSSION -

**•** 

12.05 - 13.20 FANTASIE / 2<sup>ND</sup> FLOOR

#### **IMAGING THE LAA**

Moderators / Simon Lam / Mark Reisman
Panelists / Dee Dee Wang / Henning Ebelt / Kasper Korsholm
Pre-procedural CT - case presentations / Sergio Berti
Model printing / Mark Reisman
Virtual model printing / Dee Dee Wang
Impact of computational modelling and simulation in LAA
occlusion / Ignacio Cruz Gonzales
Pre and periprocedural TEE / Bushra Rana
Fusion imaging for LAA closure / Henning Ebelt
How to assess complications during follow-up / Simon Lam

#### DISCUSSION -





## PICK UP YOUR LUNCH BOXES



13.30 - 16.05 FANTASIE / 2<sup>№</sup> FLOOR

## HOW TO USE DIFFERENT LAA CLOSURE DEVICES

Moderators / Randall Lee / Joseph DeGiovanni Panelists / Ulf Landmesser / Markus Sandri / Marek Grygier

#### My 6 most important tips and tricks for

- The new WATCHMAN FLX / Markus Sandri
- Amulet / Apostolos Tzikas
- Lariat / Randall Lee
- LAmbre / Markus Sandri

#### New LAA closure devices

- Cormos / Markus Sandri
- SeaLA / Ling Tao
- Occlutech / Iqbal Maliq
- Eclipse / Lars Sondergaard
- Conformal / Mark Reisman

#### Postprocedural management

- Medication, follow-up / Dabit Arzamendi
- How to evaluate residual leaks / Martin Swaans
- What to do with residual leaks? / Kolja Sievert

#### Complications and challenging cases – case-based lectures

- A case of device embolisation / Joseph DeGiovanni
- A case of thrombus on the device / Pascal Defaye
- Double device closure for large or bilobar LAA

/ Mohamad Alkhouli

#### DISCUSSION -

19.30-23.00 SOCIAL DINNER

at alex Frankfurt Skyline Plaza / Meetingpoint: 19.00 in front of the entrance of the congress center

## 🗲 SATURDAY, JUNE 29

#### **CSI CONFERENCE**

Neil Wilson's callenging cases	126
KOL case competition with live: congenital and structural	126
Pices: here is another way to do it! – novel approaches to cardiac catheterization	127
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CSI road to the top	129
Cath lab efficiency	130
Good bye and live only	130

#### **FOCUS WORKSHOPS**

# ASD CLOSURE Introduction and imaging the ASD 132 How to close ASD & tips and tricks 132 Case-based learning, recent innovations and studies 133 in ASD closure

#### PATENT DUCTUS ARTERIOSUS (PDA)

PDA stenting for duct-dependent systemic circulation	136
PDA closure in premature infants	136
PDA closure in children and adults	137

#### HEART FAILURE INTERVENTIONS

Telemedicine devices	140
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The left ventricle	141
Other new concepts for device based treatment of heart failure	142



**SATURDAY, JUNE 29** 

# CSI Conference

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07.00 - 08.00 EXHIBITION AREA / 1<sup>st</sup> FLOOR

BREAKFAST

07.00 – 08.00 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> Floor

#### NEIL WILSON'S CALLENGING CASES

Moderator / Neil Wilson

Forward flow closure after total cavopulmonary connection operation by Occlutech muscular VSD occluder / Keyhan Sayadpour

PDA stenting in conjoined twins with one heart / Shreesha Maiya

Simultaneous aortic paravalvar leak repair and transcatheter valve-in-valve therapy for actively dehiscing bioprosthetic AVR causing multi-system organ failure / Keshav Nayak

A successful case of transcollateral bi-directional balloon pulmonary angioplasty for total occlusive lesions in patient with chronic thromboembolic pulmonary hypertension / Satoru Toi

#### - DISCUSSION -



08.00 - 10.00 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> Floor

## KOL CASE COMPETITION WITH LIVE: CONGENITAL AND STRUCTURAL

Moderators / John Thomson / Worakan Promphan Panelists / Ziyad Hijazi / Supaporn Roymanee Live center coordinator / Stefan Bertog

#### LIVE CASE TRANSMISSIONS FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany and Madras Medical Mission, Chennai, India

KOL challenge / Neil Wilson vs. Shakeel Qureshi

#### - DISCUSSION -

CSI

08.00 - 08.50 CONCLUSIO 2 / 1<sup>st</sup> FLOOR

## PICES: HERE IS ANOTHER WAY TO DO IT! - NOVEL APPROACHES TO CARDIAC CATHETERIZATION

Moderators / Shabana Shanhanavaz / Sebastian Goreczny

3D guided cardiac catheterizations – not another presentation about pretty pictures / Sebastian Goreczny Accessing ECMO circuits for catheterization and other techniques / Daniel McLennan

Fontan baffle leak closure through the RA / Radwa Bedair

- DISCUSSION -

08.00-10.00 POSTER AREA / 2<sup>№</sup> FLOOR

## CATH LAB CAFE

#### TAVI working group

Moderators / Nicolas Van Mieghem / Danny Dvir Presenters / Nicola Buzzatti / Norman Mangner / Alexander Tamm / Massimo Napodano / Shafeeq Mattummal / Nils Petri / Cameron Dowling

#### Mitral valve interventions working group

Moderator / Allison Cabalka Presenters / Rochus Voeller / Takehiro Nomura / Yoshifumi Nakajima / Rodrigo Estevez-Loureiro / Shreya Ghetiya

#### LAA working group

Moderators / Sameer Gafoor / Joseph DeGiovanni Presenters / Alexander Sedaghat / Alberta Yen / Jung-Sun Kim / Francesco Tomassini / Henning Ebelt / Iris Rodriguez-Costoya / Francisco Chamie

Challenging cases from Asia-Pacific working group Moderators / Do Nguyen Tin / Lucy Eun Presenters / Jae-Kwan Song / Bharathap A P / Pangeran Akbar Syah / Amitabha Chattopadhyay / Manish Chokhandre / Ravindra Pawar / Arvind Singh / Anil Kumar Singhi / Debabrata Nandi / Prakash Ramachandra / Ajay Mahajan / Rajasekhar Varada

#### Paravalvar leaks working group

Moderator / Matthew Daniels Presenters / Mohamed Alkhoul / Takeshi Arita / Felix Woitek / Carmen Moldovan / Keshav Nayak / Mani Motwani

#### Complications in the cath lab working group

Moderators / Sherien Abdelsalam / Maiy El Sayed Presenters / Alaa Mahmoud Roushdy / Amr Mansour / Umberto Cucchini / David Baghdasaryan / Mamta Buch / Weal Al-Ghabra / Keyhan Sayadpour / Liliana Maria Ferrin

---- DISCUSSION -



10.00 - 10.30 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## TEA AND COFFEE BREAK



10.30 - 12.30 CONCLUSIO 2 / 1<sup>st</sup> FLOOR

#### **CASPIAN @ CSI**

Moderators / Behzad Alizadeh / Bharat Dalvi Panelists / Lee Benson / Mahmoud Shabestari

When PDA closure made complicated / Hojjat Mortezaiean
Pulmonary valve case complication / Zahid Amin
Post stenting, pulmonary artery branch dissection
/ Behzad Alizadeh
Stenting of tortuous duct complicated with heart block
/Keyhan Sayadpour
Getting out of complex pulmonary coarctation in duct stenting / Worakan Promphan
Horrible moments during a simple PFO closure
/ Mahmoud Shabestari
Complicate pulmonary vein stenosis associated pulmonary hypertension / Atta Firuzi
Complications of PM-VSD closure / Bharat Dalvi
Reverse Potts / Jesse Esch



#### 10.30 - 12.30 MAIN LECTURE HALL HARMONIE / 1<sup>ST</sup> FLOOR

## **CSI ROAD TO THE TOP**

Moderator / Shakeel Qureshi Panelists / Sameer Gafoor / Damien Kenny / Simon Lam / Eberhard Grube / Stefan Bertog / Allison Cabalka

How to get your foot into a training program / Sameer Gafoor How to get the best out of your training program / Damien Kenny Returning home: how to start a structural program from the scratch / Simon Lam Why and how to do clinical research / Mark Reisman Why and how to become faculty at international conferences / Allison Cabalka How to prepare an excellent lecture - even at the last minute / Eberhard Grube How to moderate a conference - even without experience in the field / Shakeel Qureshi How to get along with your colleagues / Stefan Bertog Why and how to use twitter, facebook, instagram & more / Matthew Daniels Why and how to get your foot into scientific societies / Gareth Morgan How to interact with industry - dos and don'ts / Fberhard Grube

- DISCUSSION -

PANEL DISCUSSION

My biggest mistakes on the road to the top



12.30 - 12.45 EXHIBITION AREA / 1<sup>st</sup> Floor

## PICK UP YOUR LUNCH BOXES

CSICONFERENCE PROGRAM 129





12.45 - 14.55 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> FLOOR

#### **CATH LAB EFFICIENCY**

Moderators / Sameer Gafoor / Eberhard Grube Panelists / Jesse Esch / Sulaiman Lubega Live center coordinator / Simon Lam

#### LIVE CASE TRANSMISSIONS FROM

Madras Medical Mission, Chennai, India and CardioVascular Center CVC Frankfurt, Frankfurt, Germany

How to do interventions in small children without general anesthesia / Dietmar Schranz TEE workflow in the cath-lab / Kolja Sievert How to do turn-over / Kolja Sievert Minimalistic TAVI / Eberhard Grube Building a structural heart program: lessons learned in Seattle / Sameer Gafoor Running a cath lab with minimal resources / Sulaiman Lubega Improving quality in catheter lab / Jesse Esch

----- DISCUSSION -



14.55 - 17.00 MAIN LECTURE HALL HARMONIE / 1<sup>st</sup> floor

### LIVE THEATRE

Moderators / Shakeel Qureshi / Neil Wilson Panelists / Martin Swaans / Sameer Gafoor / Zahid Amin Live center coordinator / Stefan Bertog

#### LIVE CASE TRANSMISSIONS FROM

Madras Medical Mission, Chennai, India and CardioVascular Center CVC Frankfurt, Frankfurt, Germany

## WE WANT TO HEAR YOUR OPINION!

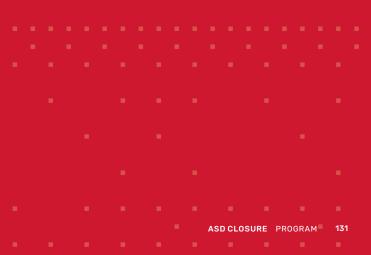


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**SATURDAY, JUNE 29** 

# **ASD CLOSURE**





## INTRODUCTION AND IMAGING THE ASD

Moderators / Mario Carminati / Bharat Dalvi Panelists / Suresh Kumar / Zahid Amin Facilitator / Adam Kolesnik

Anatomy of ASDs / Adam Kolesnik Intraprocedural imaging: TTE, TOE / Bushra Rana Intracardiac ECHO / Allison Cabalka Matching device to septal morphology: suggestions for

Matching device to septal morphology: suggestions for device selection / Mario Carminati

ASDs I will not close with a device / Zahid Amin

The problem of atrial fibrillation in ASD patients – before and after closure / Zahid Amin

ASD closure in elderly patients – concerns, technical challenges, outcomes / Suresh Kumar

- DISCUSSION -



10.00 - 10.30 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## TEA AND COFFEE BREAK

10.30 - 12.30 SPEKTRUM / 1<sup>st</sup> FLOOR

## HOW TO CLOSE ASD & TIPS AND TRICKS

Moderators / Ziyad Hijazi / John Thomson Panelists / Bagrat Alekyan / Neeraj Awasti / Radityo Prakoso Facilitator / John Breinholt Our approach to ASD with no aortic rim / Bushra Rana Our approach to multiple defects / Saleha Kabir Retrieval of embolized device / Jae Young Choi Long term complications - Erosion / Jae Young Choi - Arrhythmias / Zahid Amin - Thrombus / Ziyad Hijazi Closure of sinus venosus atrial septal defects / John Breinholt Non fluoroscopic ASD closure / Radityo Prakoso Interventions in complex atrial septal defects / Ziyad Hijazi Recorded case / Mario Carminati

DISCUSSION -



12.30 - 12.45 EXHIBITION AREA / 1<sup>st</sup> FLOOR

PICK UP YOUR LUNCH BOXES

12.45 - 14.55 SPEKTRUM / 1<sup>ST</sup> FLOOR

## CASE-BASED LEARNING, RECENT INNOVATIONS AND STUDIES IN ASD CLOSURE

Moderators / Eric Horlick / Damien Kenny Panelists / Dhrtabrata Das / Matthew Gillespie / John Thomson Facilitator / Jae Young Choi

Cardiac erosion after ASD closure: Can softer devices prevent erosion? / Jae Young Choi ASD closure and atrial arrhythmias / Zahid Amin Different techniques for closing large ASDs in small children / Bharat Dalvi ASD closure from right internal jugular vein / Bharat Dalvi 12 months follow-up of the Cardioform ASD device / Matthew Gillespie CARAG Bioresorbable Septal Occluder - 2 year results / Kolja Sievert Occlutech FASD Occluder / Nikolaus Haas A new comparative study between Occlutech Figulla flexII and Amplatzer septal occluder / Damien Kenny Ceraflex experience / Mario Carminati Tips and tricks with the third generation occluder -Ceraflex / Angel Sanchez

#### - DISCUSSION -





**SATURDAY, JUNE 29** 

# PATENT DUCTUS ARTERIOSUS (PDA)

PATENT DUCTUS ARTERIOSUS PROGRAM 135

08.50 - 10.00 FANTASIE / 2<sup>№</sup> FLOOR

## PDA STENTING FOR DUCT-DEPENDENT SYSTEMIC CIRCULATION

Moderators / Gareth Morgan / Lee Benson Panelists / Biswajit Bandyopadhyay / Peter Ewert / Karen McCarthy Facilitator / Shabana Shahanavaz

PDA morphology and suitability for stenting / Karen McCarthy Stent technology for ductal stenting / Gareth Morgan Techniques of ductal stenting / Dietmar Schranz Complications of ductal stenting in HLHS / Lee Benson Institutional experience with ductal stenting / Biswajit Bandyopadhyay Anticipated complications of PDA stenting

/ Ina Michel-Behnke

— DISCUSSION -

2 10.00 - 10.30 EXHIBITION AREA / 1<sup>st</sup> FLOOR

#### TEA AND COFFEE BREAK

**\$** 

10.30 - 12.30 FANTASIE / 2<sup>ND</sup> FLOOR

## PDA CLOSURE IN PREMATURE INFANTS

Moderators / Neil Wilson / Alain Fraisse Panelists / Amitabha Chattopadhyay / Matthew Gillespie / Stephan Schubert Facilitator / Sok-Leng Kang PDA morphology in premature infants / Karen McCarthy Challenges faced in introduction of PDA closure in premature infants / Neil Wilson Modifications of technique using different devices

/ Shabana Shahanavaz

Dealing with complications of PDA closure in premature infants – tips and tricks / Alain Fraisse



Results of PDA closure in premature infants

/ Sok-Leng Kang

Long term results of surgical closure of premature ducts / Regina Bokenkamp

PDA closure in preterm neonates – technical tips and results / Shayam Sathanandam

Amplatzer Piccolo / Matthew Gillespie

Short term and medium term results of PDA closure in neonates and young children / Sok-Leng Kang

- DISCUSSION -

ΨŤ

12.30 - 12.45 EXHIBITION AREA / 1<sup>st</sup> FLOOR

PICK UP YOUR LUNCH BOXES



12.45-14.55 FANTASIE / 2<sup>ND</sup> FLOOR

## PDA CLOSURE IN CHILDREN AND ADULTS

Moderators / Do Nguyen Tin / Gareth Morgan Panelists / Supaporn Roymanee / Bagrat Alekyan / Gi Beom Kim Facilitator / Karen McCarthy

Recorded case / Worakan Promphan

Different ductal morphologies and relevance to closure / Karen McCarthy

What is the best imaging technique prior to PDA closure – case-based lecture /  ${\sf Gi}$  Beom Kim

Available devices for PDA closure / Supaporn Roymanee

PDA closure with different devices – case-based lecture / Do Nguyen Tin

- Transcatheter closure of large and long PDAs in infants using AVP II: early experience / Jae-Young Choi
  - Closure of PDAs in adults technical challenges and tips  $/ \ensuremath{\mathsf{Ingo}}$  Daehnert

Transcatheter closure of large and hypertensive ductus arteriosus / Juan Pablo Sandoval

DISCUSSION -





**SATURDAY, JUNE 29** 

# HEART FAILURE





08.50 - 10.00 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

#### **TELEMEDICINE DEVICES**

Moderators / Abraham Lorber / Sameer Gafoor Panelists / Miroslava Stolcova / Kolja Sievert

#### LIVE CASE TRANSMISSION FROM

CardioVascular Center CVC Frankfurt, Frankfurt, Germany

CardioMems / Stephan Rosenkranz

Vectorious / Miroslava Stolcova

Non-invasive intra-cardiac pressure monitoring – fact or fiction? / Abraham Lorber

Other devices for heart failure monitoring / Kolja Sievert

#### - DISCUSSION -



10.00 - 10.30 EXHIBITION AREA / 1<sup>st</sup> FLOOR

## TEA AND COFFEE BREAK



10.30 - 12.30 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

## INTERATRIAL SHUNTING

Moderators / Dietmar Schranz / Franz Kleber Panelists / Xiangqing Kong / Sachin Khambadkone / Nikolaus Haas Facilitator / Ted Feldman

#### LIVE CASE TRANSMISSION FROM

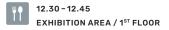
Madras Medical Mission, Chennai, India

How could interatrial shunts work? / Franz Kleber
Devices and concepts for interatrial shunting

V-Wave shunt / Antoni Bayes-Genis
InterAtrial shunt device (IASD) / Franz Kleber
Atrial flow regulator (AFR) / Nikolaus Haas
NOYA: a new approach leaving nothing behind / Xiangqing Kong
Interatrial shunting for diastolic left heart failure in children / Sachin Khambadkone

----- DISCUSSION --





#### PICK UP YOUR LUNCH BOXES



12.45-13.20 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

## THE VALVES

Moderators / Nicolas Van Mieghem / Stephan von Bardeleben Panelists / Gry Dahle / Vaikom Mahadevan

# The role of transcatheter valve therapy in heart failure treatment: when is it indicated and what can we expect?

- Mitral / tbd
- Tricuspid / Vaikom Mahadevan
- Aortic / Nicolas Van Mieghem

----- DISCUSSION ----



13.20-14.20 CONGRESS THEATRE / 2<sup>ND</sup> FLOOR

## THE LEFT VENTRICLE

Moderators / Gry Dahle / Mark Reisman Panelists / Franz Kleber / Patrick Klein / Markus Reinartz

#### Revivent Less Invasive Ventricular Enhancement (LIVE) procedure

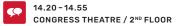
- Single center experience with Revivent Less Invasive Ventricular Enhancement (LIVE) procedure / Patrick Klein
- How to do it: recorded case / tbd

#### AccuCinch left ventricular repair

- Technology and procedural steps / Franz Kleber
- Early outcomes data in interventional heart failure treatment / Mark Reisman

Short term pVAD support for left ventricle failure / Marcus Wiemer

- DISCUSSION -



## OTHER NEW CONCEPTS FOR DEVICE BASED TREATMENT OF HEART FAILURE

Moderators / Dietmar Schranz / Nicolaus Van Mieghem Panelists / Markus Reinartz / Jan Solem Facilitator / Ellen Ostenfeld

Syntach – a novel minimally invasive cardiac support system / Jan Solem

New aspects of cardiac pumping / Ellen Ostenfeld Pulmonary banding / Dietmar Schranz

- DISCUSSION -





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#### SCIENTIFIC ABSTRACTS

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CSI SCIENTIFIC ABSTRACTS

145

On the following pages you will find a summary of the abstracts and cases that were accepted for CSI 2019.

The moderated e-poster presentation will take place on Thursday, June 27, 2019 and Friday, June 28, 2019 from 07.00 – 08.00 in the poster area on the 2<sup>nd</sup> floor.



All abstracts and cases are available for download on the CSI website www.csi-congress.org/frankfurt/ abstracts

## [A] COARCTATION AND DUCTS

- A1 Stenting the vertical ductus arteriosus via axillary artery using "wire-target" technique / Tugcin Bora Polat
- A2 Our first experience in stenting of coarctation of aorta in infants and small children / Mehdi Ghaderian / Mohammad Reza Sabri / Ali Reza Ahmadi / Sargol Bayat
- A3 Therapeutic perforation (?) of a tight coarctation in an adult with severe systemic hypertension / Sanjeev Hanumantacharya Naganur / Parag Barwad
- A4 Use and safety of cardiac catheterization performed in neonatal post-heart surgery with poor hemodynamics evolution. Study in a center of medium complexity / Alberto Emilio Robredo
- A5 Percutaneus closure of patent ductus arteriousus in adolescent and adult population / Luis Fernandez Gonzalez / Roberto Blanco Mata / Koldobika Garcia San Roman / Juan Carlos Astorga Burgo / Aida Acin Labarta / Josune Arriola Meabe / Larraitz Orive Melero / Jose Miguel Galdeano Miranda
- A6 Long segment coarctation with large PDA and severe PHT in a 16 kg: planning and approach to hybrid stenting / Supratim Sen / Sneha Jain / Priya Pradhan / Dipesh Trivedi / Bharat Dalvi



- A7 Comparison of hemodynamic and respiratory parameters of surgical ligation versus transcatheter closure of patent ductus arteriosus in preterm infants weighting less than 1800 grams
   / Jieh-Neng Wang / Yu-Jen Wei / Yung-Chieh Lin
   / Chung-Dann Kan / Min-Ling Hsieh / Jing-Ming Wu
- A8 Transcatheter coarctoplasty with stent implantation with prostar plus / Ajay Mahajan
- A9 Complications of PDA device closure and outcomes of the use of large devices / Kewal Kanabar / Manoj Kumar Rohit
- A10 Intermediate term outcomes of balloon coarctoplasty for native aortic coarctation / Ronak Sheth / Kothandam Sivakumar
- A11 The inferior vena cava stent in a child with budd chiari syndrome / Hojat Mortezaeian / Farshad Jafari / Ata Firouzi
- A12 Feasibility of Philips Volcano FFR Wire for haemodynamic assessment in paediatric and non-coronary interventions / Arvind Singh / Kothandam Sivakumar
- A13 Transcatheter closure of large and long patent ductus arteriosus with pulmonary hypertension in infants: early experience with amplatzer vascular plug II / Sneha Jain / Priya Pradhan / Supratim Sen / Bharat Dalvi
- A14 Material characterization of 3D printed HeartPrint Flex plus models and comparison with arterial tissue properties / Maureen Schickel / Kevin Townsend / Simon Lejaegere / Dario Farotto
- A15 What approach should follow an initial hybrid procedure for HLHS spectrum anomalies: a case for a multicentre registry? / Francisco Gonzalez Barlatay / Michael Yeong / Robin Martin / Andrew Tometzki / Barry O'Callaghan / Parry Andrew / Massimo Caputo / Serban Stoica / Demetris Taliotis
  - A16 The safety and efficacy of echocardiographytranscatheter closure of patent ductus arteriosus: a systematic review / Radityo Prakoso

OVERVIEW SCIENTIFIC ABSTRACTS 147

- A17 Closure of a calcified tubular type D patent ductus arteriosus (PDA) causing congestive cardiac failure in an elderly patient / Avinash Anantharaj / Ashutosh Yadav / Bhagwati Prasad Pant / Santhosh Satheesh / Raja J Selvaraj / Jayaraman Balachander
- A18 Device closure of large tubular patent ductus arteriosus with severe pulmonary hypertension: analysis of 520 cases / Nurun Nahar Fatema Begum
- A19 An unusual cause of decompensation following attempted percutaneous PDA closure / Ebrahim Hoosen
- A20 Percutaneous closure of patent ductus arteriosus via standard femoral venous access in a syndromic child with interruption of inferior vena cava / Sanjeev Hanumantacharya Naganur / Parag Barwad
- A21 VSD pulmonary atresia with confluence stenosis: provisional bifurcation strategy in PDA stenting / Sanjeev Hanumantacharya Naganur / Parag Barwad
- A22 Large PDA device closure with duct occluder I / Sarat Kumar Sahoo
- A23 Large PDA device closure with muscular VSD device / Sarat Kumar Sahoo
- A24 Transcatheter closure of PDA in less than 5 kg babies – early experience / Mohd Mirza / Shaad Abqari
- A25 Transcatheter closure of large PDA / Mohd Mirza
- A26 Ductal stenting in a conjoint twin (Thoracophagus) with a shared heart / Prakash Ramachandra
- A27 Small Amplatzer duct Occluder II for large patent ductus arteriosus in newborn infants / Ming-Chih Lin

#### [B] PULMONARY CIRCULATION

B1 Right ventricular outflow tract palliation improves growth and circulation of pulmonary arteries in tetralogy of fallot infants with tet spell / Mohsen Sedighi / Fatemeh Najafi / Fahimeh Shirvani



- B2 Balloon angioplasty of bidirectional Glenn anastomosis / Amr Matoq / Wolgang Radtke
- B3 Surgically placed radiopaque markers a novel technique to facilitate postoperative catheterization in infants with duct- or shunt-dependent lesions /Johanna Hummel / Rouven Kubicki / Brigitte Stiller / Clarence Pingpoh / Matthias Siepe / Jochen Grohmann
- B4 Management of branch pulmonary artery stent fracture by a stent-in-stent technique / Manoj Kumar Rohit / Kewal Kanabar
- B5 Severe stenosis of the right pulmonary artery postmodified BT shunt / Edite Serrano Goncalves
   / Maria Joao Ribeiro Leite Baptista
   / Jorge Bernardo Oliveira Casanova / Joao Carlos Silva
   / Jorge Moreira
- B6 Closure of right pulmonary artery to left atrial fistula by duct occluder / Ijaz Hussain
- B7 Urgent catheter-directed therapy in high-risk and intermediate-high risk acute pulmonary embolism improves hemodynamic parameters and outcomes: analysis from an urgent code registry / Juan Gabriel Cordoba Soriano / Arsenio Gallardo Lopez / Antonio Gutierrez Diez / Driss Melehi
   / Juan Jose Portero Portaz / Maria Isabel Barrionuevo Sanchez / Miguel Corbi Pascual / Jesus Jimenez Mazuecos
- B8 Does routine diagnostic cardiac catheterisation lead to a change in the management of adult patients
   with fontan palliation? / Maria Victoria Ordonez
  - / Stephanie Curtis / Joanna Luszczak / Demetris Taliotis / Mark Turner / Radwa Bedair
- B9 Transcatheter treatment of partial anomalous
   pulmonary venous drainage / Majed Kanaan
   / Kai Thorsten Laser / Eugen Sandica / Deniz Kececioglu
- B10 Percutaneous balloon pulmonary valvuloplasty in newborns with pulmonary atresia and intact ventricular septum / Sarin Lekchuensakul / Ankavipar Saprungruang / Pornthep Lertsapcharoen

- B11 A successful case of transcollateral bi-directional balloon pulmonary angioplasty for total occulusive lesions in patient with chronic thromboembolic pulmonary hypertension / Satoru Toi
- B12 Initial experience with andrastent in children and adults with congenital heart desease / Liliana Ferrin / Rolando Gomez / Rodrigo Egues Almeida / Teresa Escudero / Fernando Piccoli
- B13 Occlusion of pulmonary arteriovenous malformation in a Brazilian indigenous boy using Amplatzer vascular plug / Augusto Daige da Silva / Alfredo Moreira da Rocha Neto / Diego Silveira da Costa / Maximiliano Otero Lacoste
- B14 Non invasive intra-cardiac pressure monitoring (ICPM) / Alexander Brenner / Avraham Lorber
- B15 Plug closure of pulmonary venous collateral with dual exits in a univentricular heart / Arun Gopalakrishnan

#### [C] SEPTAL DEFECTS

- C1 Transcatheter closure of ventricular septal defects using Amplatzer duct Occluder II device / Tugcin Bora Polat
- C2 Close the hole but the good one / Jean-Marc Schleich / Kader Bakhti
- C3 Cardiac erosion causing aortic dissection after catheter closure of atrial septal defect: first erosion case of Figulla Flex II septal occluder / Masao Imai
  - C4 Don't judge a book by its cover cryptogenic stroke, PFO and something else / Francisco Chamie / Daniel Peralta / Joao Carlos Tress / Joao Mansur
  - C5 Long-term complications in percutaneous closure of muscular septum defects with multiple devices / Alberto Emilio Robredo



- C6 Safety and efficacy of percutaneous atrial septal defect closure without fluoroscopy: a systematic review / Prissilia Prasetyo / Radityo Prakoso
- C7 Short and midterm effects of transcatheter ASD closure treatment on nutritional status appetite, antropometric measurements / Nazmi Narin / Oezge Pamukcu / Onur Tasci / Didem Barlakketi / Figen Narin / Aydin Tuncay
- C8 Short and midterm effects of transcatheter ASD closure treatment on nutritional hormones / Nazmi Narin / Oezge Pamukcu / Onur Tasci / Didem Barlakketi / Figen Narin / Aydin Tuncay
- C9 Current status of percutaneous closure of congenital ventricular septal defects in pediatric and adult population / Luis Fernandez Gonzalez / Roberto Blanco Mata / Koldobika Garcia San Román / Juan Carlos Astorga Burgo / Aida Acin Labarta / Josune Arriola Meabe / Larraitz Orive Melero / Jose Miguel Galdeano Miranda / Juan Alcibar Villa
- C10 Successful TOE assessment and closure of traumatic ventricular septal defect without the use of angiographic contrast / Antigoni Deri / Grazia Delle Donne / Mohamed Kasem / James Bentham / John Thomson
- C11 Radiation dose reduction in pediatric cardiac catheterisation – a pilot study / Ronak Sheth / Kothandam Sivakumar
- C12 Heart block following VSD device closure with amplatzer devices: single operator experience over last three years / Dhritabrata Das
- C13 Transcatheter closure of a large multifenestrated atrial septal Defect (ASD): initial strategy and unplanned changes / Umberto Cucchini / Massimo Carasi / Mirco Zadro / Antonio Iavernaro / Eustaquio Onorato / Fabio Chirillo
- C14 Transcatheter closure of outlet ventricular septal defects – defining the anatomy and feasibility / Sivaprakasam Muthukumaran Chinnasamy / Priya P S / Annie Arvind / Rajesh Kumar / Anuradha Sridhar

- C15 Clinical experience of transcatheter closure by coil for residual ventricular septal defect in pediatric patients / Ivan Skofenko
- C16 Retrograde percutaneous closure of perimenbranous ventricular septal defect in a failed antegrade approach / Augusto Daige da Silva / Alfredo Moreira da Rocha Neto / Diego Silveira da Costa
- C17 Video assisted ventricular septal defect closure with left mini-toracothomy and trans-pulmonary approach / Rosa Liliana Silva Flores / Hector Rafael Diaz Garcia / Carlos Alberto Jimenez Fernandez / Oscar Sergio Lomeli Sanchez / Italo Masini Aguilera / Luisa Fernanda Aguilera Mora / Carlos Daniel Higuera Medina / Graziella Alexandra Galvez Blanco / Ricardo Garcia Gonzalez / Jose Jesus de Dios Rivera / Luis Enrique Higuera Medina / Montserrat Rosales Gonzalez / Benigno Ferreira Pina
- C18 Clinical significance of septal malalignment for transcatheter closure of atrial septal defect / Yoichi Takaya
- C19 Identification of high-risk patent foramen ovale associated with cryptogenic stroke: development of the score system / Yoichi Takaya / Rie Nakayama / Teiji Akagi / Koji Nakagawa / Hiroshi Ito
- C20 Left bundle branch block post device closure of perimembranous ventricular septal defect leading to left ventricular dyssynchrony and left ventricle dysfunction: case series / Bharathap A P / Anand P Subramanian / Jayaranganath M
- C21 A new device for ventricular septal defect closure: lifetech KONAR-MF, multicentre experience

/ Ibrahim Cansaran Tanidir / Osman Baspinar
 / Mehmet Kervancioglu / Alper Guzeltas

- C22 Clinical significance of septal malalignment for transcatheter closure of atrial septal defect / Takashi Miki / Yoichi Takaya / Teiji Akagi / Koji Nakagawa / Rie Nakayama / Hiroshi Ito
- C23 The fate of residual shunt in transcatheter closure of multiple atrial septal defects / Jae Hee Seol



- C24 Transcatheter re-intervention for intravascular hemolysis after percutaneous ventricular septal defect closure / Ankavipar Saprungruang / Sarin Lekchuensakul / Pornthep Lertsapcharoen
- C25 Balloon assisted technique in transcatheter closure of large atrial septal defects / Thitima Limjaroen / Pornthep Lertsapcharoen / Vorarit Lertsuwunseri / Siriporn Athisakul / Suphot Srimahachota
- C26 Percutaneous closure of late VSR after primary PCI / Asif Rehman
- C27 Coronary artery fistula to right atrium after transcatheter atrial septal defect closure / Kim Jung Yoon / Seong Ho Kim / Jung II Noh / So Ick Jang / Eun Young Choi / Su Jin Park / Ji Seok Bang / Ja Kyoung Yoon
- C28 Device closure of patent ductus arteriosus without fluoroscopy: first experience in National Cardiovascular Center Harapan Kita / Radityo Prakoso / Rina Ariani / Poppy S Roebiono / Yovi Kurniawati / Oktavia Lilyasari / Indriwanto Sakidjan Atmosudigdo / Anna Ulfah Raharjoe / Sisca Natalia Siagian / Olfi Lelya / Ganesja Harimurti
- C29 Percutaneous baffle interventions in adult survivors of the atrial switch operation / Heiko Schneider / Andrew R. Eventhal / Ashish A. Shah / Mark Osten / Lee Benson / Eric Horlick
- C30 Management of tricuspid valve sub valvular apparatus injury after attempted device closure of vsd / Punithakumar Ramasamy / Suresh Babu Kale / Senthilkumar Ramalingam
- C31 Clinical and procedural outcomes of percutaneous closure of septum secundum ASD compared to surgical closure / Mohammad Ansari / Daniel Garcia
- C32 Transcatheter closure of post-surgical postmyocardial infarction ventricular septal rupture / Eustaquio Onorato
  - C33 Percutaneous atrial septal defect closure without fluoroscopy in a pregnant woman with pulmonary hypertension / Pangeran Akbar Syah / Radityo Prakoso / Poppy Roebiono / Yovi Kurniawati / Oktavia Lilyasari / Indriwanto Sakidjan / Anna Ulfah Rahajoe / Sisca Natalia Siagian / Olfi Lelya / Ganesja Harimurti / Aditya Agita Sembiring

- C34 Transcatheter ASD closure in a dual chamber paced heart using a large 48mm device / Ronak Sheth / Kothandam Sivakumar
- C35 Sub-pulmonic VSD device closure / Sarat Kumar Sahoo

#### [D] VALVE DISEASE

- D1 Transcatheter tricuspid valve replacement: initial clinical results of LuX-Valve / Fanglin Lu
- D2 Firts long term results after off pump implantation of artificial chordae in mitral regurgitation due to anterior leaflet prolapse / Nalan Schnelle / Laura Vaskelyte / Dilek Ister / Horst Sievert / Christian-Friedrich Vahl
- D3 Transcatheter aortic valve replacement reduces NT-proBNP in patients with severe bicuspid aortic stenosis and reduced left ventricular ejection fraction / Toshiaki Yamanaka / Frank Hoelschermann / Grit Tambor / Maki Okamoto / Anja Haase-Fielitz / Michael Neuss / Christian Butter
- D4 Mitral leaflet perforation by MitraClip performed to a patient with very severe functional mitaral regurgitation / Mariko Yano / Akihiro Isotani / Miho Nakamura / Takashi Morinaga / Masaomi Hayashi / Shinichi Shirai / Shinichi Kakumoto / Genichi Sakaguchi / Kenji Ando
- D5 Successful inoue balloon dilatation of severe rheumatic mitra I & tricuspid stenois in young female / Rohit Walia
  - D6 Mitral chordal rupture in the setting of impella supported high-risk percutaneous coronary intervention in a patient with severe aortic stenosis / Hirofumi Ohtani / Giuseppe Ferrante / Paolo Pagnotta / Bernhard Reimers
  - D7 Early experience with patient-specific computer simulation of transcatheter aortic valve implantation in bicuspid aortic valve morphology / Cameron Dowling / Sami Firoozi / Stephen Brecker



- D8 Balloon pulmonary valvuloplasty in neonates with critical pulmonary stenosis: jugular or femoral / Erick Hoetama / Radityo Prakoso / Poppy S. Roebiono / Indriwanto Sakidjan Atmosudigdo / Oktavia Lilyasari / Yovi Kurniawati / Sisca Natalia Siagian / Olfi Lelya / Anna Ulfah Rahajoe / Ganesja Moelia Harimurti
- D9 Bail-out techniques for second valve delivery failure in case of valve embolization / Shinya Ito / Tomohiko Taniguchi / Shimpei Fujioka / Hiroshi Takiguchi / Shintaro Mori / Mariko Yano / Tomohiro Kawaguchi / Takashi Morinaga / Masaomi Hayashi / Akihiro Isotani / Shinichi Shirai / Yoshio Arai / Genichi Sakaguchi / Kenji Ando
- D10 Thrombotic occlusion of LAD immediately after implantation of Sapien 3 / Shimpei Fujioka / Hiroshi Takiguchi / Tomohiko Taniguchi / Shinichi Shirai / Kenji Andou
- D11 Discrepancies between catheter and doppler gradients in valve-in-valve transcatheter aortic valve replacement / Alberta Yen / Cindy Wang / William Fearon / Michael Fischbein / Anson Lee / Alan Yeung / David Liang
- D12 Short and long-term outcomes of a tavi center without on site cardiac surgery
  / Jesus Jimenez Mazuecos / Juan Gabriel Cordoba Soriano
  / Arsenio Gallardo Lopez / Antonio Gutierrez Diez
  / Driss Melehi / Juan Carlos Garcia Lopez
  / Maria Isabel Barrionuevo Sanchez / Miguel Corbi Pascual
- D13 Piecemeal dilation of critical PS makes a difference / Amira Nour
- D14 Relationship of Venus P-valve stent fracture rate with muscular contraction of the right ventricular outflow tract / Tomohito Kogure / Matthew Jones
  - / Salim Jivanji / Jan Hansen / Gianfranco Butera / Eric Rosenthal / Shakeel Qureshi
- D15 Comparative study of oversizing with underdilatation versus undersizing with full dilatation using accura balloon catheter in balloon mitral valvuloplasty / Ajay Mahajan
- D16 Should we perform additional tricuspid valve repair in patients undergoing mitral valve repair? / Nalan Schnelle / Dilek Ister / Walter Kasper-Koenig / Christian-Friedrich Vahl

D17 A challenging TAVR case: vascular complication / Jian'an Wang / Xianbao Liu

D18 ECMO in a very high risk transcatheter aortic valve implantation / Rosa Liliana Silva Flores
/ Luisa Fernanda Aguilera Mora / Hector Rafael Diaz Garcia
/ Carlos Alberto Jimenez Fernandez
/ Luis Enrique Higuera Medina / Benigno Ferreira Pina
/ Oscar Sergio Lomeli Sanchez / Graziella Alexandra Galvez Blanco
/ Carlos Daniel Higuera Medina / Ricardo Garcia Gonzalez
/ Montserrat Rosales Gonzalez / Jose Jesus de Dios Rivera
/ Italo Masini Aguilera

- D19 First transcatheter aortic valve replacement for severe aortic regurgitation in a patient with behcet's disease / Xianbao Liu / Jian'an Wang
- D20 LVOT obstruction post transcatheter aortic valve replacement / Xianbao Liu / Jian'an Wang
- D21 TAVR using the hydra self expanding bioprosthesis a single center experience / Shafeeq Mattummal / Lars Sondergaard / Anil Saleem
- D22 Succesful percutaneous closure of a post-TAVR fistula between LVOT and left atrium with an Amplatzer duct Occluder II device / Miroslava Stolcova / Francesca Ristalli / Francesco Meucci / Daniele Landi / Giovanni Squillantini / Carlo Di Mario

D23 Double utility of a buddy wire in trans-septal transcatheter mitral intervention / Iqbal Malik / Ozan Demir / Punam Pabari / Nilesh Sutaria / Andrew Chukwuemeka / Deepa Gopalan / Nearchos Hadjiloizou / Sayan Sen / Ghada Mikhail / Neil Ruparelia

D24 Validation of computational models and simulations aiming to optimize the preprocedural planning in

percutaneous left atrial appendage closure / Alessandra Maria Bavo / Ben Wilkins / Philippe Garot

- / Sander De Bock / Jacqueline Saw / Lars Sondergaard / Francesco lannaccone / Ole de Backer
- D25 First transcatheter pulmonary valve implantation an Indian-made valve

/ Sivaprakasam Muthukumaran Chinnasamy / Annie Arvind / G. Sengottuvelu

D26 Follow up of patients treated with percutaneous coronary intervention (PCI) previously to the implementation of aortic transcatheter valve (TAVI) / Juan Francisco Arreguin Porras



- D27 Hybrid approach for mitral paravalvular leak closure via transapical access / Akio Kawamura / Teruya Nakamura / Teruaki Ushijima / Narutaka Ohashi / Teruo Okabe
- D28 Simultaneous aortic paravalvular leak repair and transcatheter valve-in-valve therapy for actively dehiscing bioprosthetic AVR causing multi-system organ failure / Keshav Nayak / Tuan Mai / Ravi Parikh / Praveen Panguluri / David Lerner / Jeffrey Tyner / Curtiss Stinis
- D29 Percutaneous mitral paravalvular leak closure in a transplanted heart / Jerrett Lau / Anne Scott / Mark Petrie / Miles W. H. Behan / David B. Northridge
- D30 Management of stress-induced cardiomyopathy with impella CP after percutaneous paravalvular leakage closure / Felix Woitek / Linke Axel / Mangner Norma
- D31 Recurrence of mitral paravalvular leak. Is transcatheter closure always the best option? / Carmen Moldovan / Konstantinos Kalogeras / Konstantina Aggeli / Konstantinos Aznaouridis / Manolis Vavuranakis
- D32 Transcutaneous pulmonary valvotomy by CTO wire for pulmonary atresia with intact ventricular septum without arterial punctures: two cases report / Ming-Chih Lin
- D33 Unexpected complication of percutaneous pulmonary valve implantation / Debabrata Nandi / Philip Roberts
- D34 Severe pulmonary stenosis in a pregnant woman / Kim Jung Yoon / Eun Young Choi / Eung Re Kim / Sung Ho Kim / Jung II Noh / Chang Ha Lee
- D35 Percutaneous transcatheter tricuspid balloon valvuloplasty of bioprosthetic tricuspid valve stenosis: a single sequential balloon technique / Jessielyn Sia / Timothy Dy / Melissa Sia
  - D36 Mitralix first-in-human transcatheter valve repair for tricuspid insufficiency / Yonatan Ben-Zvi
  - D37 Transcatheter aortic valve implantation in low rise left main ostium / Ajay Mahajan

## [E] LAA CLOSURE

- E1 Left atrial appendage occlusion with double device / Francesco Tomassini
- E2 Off-label device closure of residual shunt postsurgical ligation of the left atrial appendage / Francisco Chamie / Daniel Peralta / Romulo Torres / João Carlos Tress
- E3 Left atrial appendage occlusion with the LAmbre device: initial experience / Francisco Chamie / Enio Guerios / Adriano Dourado Oliveira / Daniel Peralta / Romulo Torres / João Carlos Tress / Maximiliano Lacoste
- E4 Placement of a vascular plug for residual leak during a watchman left atrial appendage occlusion procedure / Alberta Yen / Cindy Wang / Rushi Parikh / Guson Kang / Yuhei Kobayashi / David Lee / David Liang
- E5 Characteristics and correlations of anatomical and functional parameters of left atrial appendage in paroxysmal atrial fibrillation patients with/without the cardioembolic stroke: a three-dimensional transeophageal echocardiography / Yuki Matsumoto / Yoshihiro Morino
- E6 Left atrial appendage closure after intracerebral hemorrhage / Konstantinos Aznaouridis / Konstantina Aggeli / Konstantinos Kalogeras / Stratis Katsianos / Evelina Bei / Babis Kalantzis / Maria Kariori / Manolis Vavuranakis

## [F] RVOT STENTING

- H1 Perforation of membranous pulmonary atresia and a rvot stenting in a small infant / Sanjeev Hanumantacharya Naganur / Parag Barwad
  - H2 Palliative RVOT stenting in a phenotypic noonan's infant with severe RV dysfunction / Ronak Sheth / Kothandam Sivakumar



H3 Hybrid stenting of the RVOT in a case of pulmonary atresia with large subaortic ventricular septal defect by retrograde puncture of RVOT from the pulmonary artery / Prakash Ramachandra / Sudesh Prabhu / Shreesha Maiya

### [G] MISCELLANEOUS

- L1 Use of percutaneous carotid artery access for certain pediatric cardiac interventions: single center study / Tugcin Bora Polat
- L2 Percutaneous femoral arterial cannulation in neonates undergoing cardiac surgery or catheterization: using ultrasound guidance with 0.014 inch floppy guidewire / Tugcin Bora Polat
- L3 Dislodgement of long tapered tip sirulimus eluting stent from delivery balloon and subsequent deployment in radial artery – a case report French medical institute in Kabul Afghanistan / Najeebullah Jalalzai
- L4 iCMR hemodynamic dvaluation in pre and post fontan patients / Yousef Arar / Surendranath Reddy / Riad Abouzahr / Vasu Gooty / Jennifer Hernandez / Silvestre Duran / Mari Nieves Velasco Forte / Sebastien Roujol / Gerald Greil / Tarique Hussain
- L5 Percutaneous left atrial appendage occlusion yields favorable neurological outcomes in patients with non-valvular atrial fibrillation / Jung-Sun Kim / Oh-Hyun Lee / Young Dae Kim / Geu-Ru Hong / Hui-Nam Pak / Cheol Woong Yu / Yat-Yin Lam / Xavier Freixa / Apostolos Tzikas / Do-Sun Lim / Yangsoo Jang / Jai-Wun Park
- L6 Trans-axillary artery access for rescue balloon angioplasty and stent Implantation in a 3 month old patient with severe aortic coarctation, biventricular decompensation and RSV pneumonia / Julia Moosmann / Ariawan Purbojo / Robert Cesnjevar / Joerg Schirrmeister / Sven Dittrich
- L7 Transcatheter treatment of a symptomatic giant iliac artery aneurysm in a two-year old child / Osman Baspinar / Ertan Vuruskan / Serkan Coskun / Bedri Aldudak

- L8 Endovascular treatment of right coronary to right ventricle fistula in small child / Dmitriy Korzh / Ivan Tkachev
- L9 Percutaneous closure of large pulmonary artery to left atrial fistula: two cases with two different approach / Anil Kumar Singhi / Raman Krishna Kumar / Arnab De / Rana Rathod Roy
- L10 Stent re-positioning using a bioptome in case of proximally migrated stent for balloon expandable stent in maligned coarctation of aorta / Neeraj Awasthy
- L11 Reverse patient positioning to reduce radiation exposure and facilitate interventional procedures when brachiocephalic access is required – the upside-down maneuver / Rouven Kubicki / Kevin Mueller / Johanna Hummel / Brigitte Stiller / Jochen Grohmann
- L12 Mitraclip delivery system fracture requiring emergency open heart retrieval / Jainil Shah / Kerolos Fahmi / Kenneth Liao / Gladwin Das / Megan Lanigan / Srinivasan Sattiraju / Emil Missov
- L13 A case of recurrent pericardial effusion performed successful percutaneus balloon pericardiotomy / Katsushi Amemiya / Hidehiko Hara / Satoru Toi / Go Hashimoto / Masato Nakamura
- L14 A story when "bigger" was not that much better / lie Barb
- L15 Transcatheter closure of coronary cameral fistula with two years follow up / Ajay Mahajan
- L16 Intravascular stent implantation for hydrocephalus and chylothorax to congenital superior vena cava stenosis in an infant / Gernot Grangl / Gitter Roland / Marterer Robert / Burmas Ante / Kurath-Koller Stefan / Froehlich Judith / Schweintzger Sabrina / Grillitsch Marlene / Koestenberger Martin / Gamillscheg Andreas
- L17 Transcatheter closure of an unusual portosystemic shunt to coronary sinus in the setting of situs solitus dextrocardia / Ronak Sheth / Kothandam Sivakumar
- L18 Diagnosis, evaluation and outcomes of percutaneous closure of abernethy malformations / Deepa Sasikumar / Anoop Ayyappan / Jineesh V / Bijulal Sasidharan / Krishnamoorthy Kavasseri



- L19 Breaking of guide wire during aortic balloon valvuloplasty / Keyhan Sayadpour Zanjani
- L20 Valve-in-valve treatment for severe bioprosthetic mitral valve stenosis: case report / Shreya Ghetiya / Maedeh Ganji / Andres Pineda Maldonado / Daniel Soffer / Srinivasan Sattiraju / Emil Missov
- L21 The outcome of extended venesection in symptomatic patients with congenital cyanotic heart diseases: a single center comparative study / Amira Nour
- L22 Congenital heart disease imaging trend in Indonesia: are we already moving towards the use of noninvasive technique? / Oktavia Lilyasari
- L23 Rescue trans-aortic LV decompression after ECMO insertion in 11-months patient with DCMP / Se Yong Jung / Jae Young Choi
- L24 Complex high-risk PCI in cardiogenic shock with impella CP / Iyad Azzam
- L25 Cardiac arrest and cardiogenic shock / Iyad Azzam
- L26 Repeated stent migration: a case report of left pulmonary artery stenting / Ahmad Vesal / Ali Zolfi-Gol / Farshad Jafari
- L27 Ventricular septal rupture as the only presenting finding of clinically silent myocardial infarction: diagnosis and management / Maria Tamargo / Abdallah El Sabbagh / Erin A Fender / Nathaniel W Taggart / Donald J Hagler / Charanjit S Rihal / Guy S Reeder
- L28 Ductal stenting with strut dilation and recruitment of right upper lobe artery in a case of pulmonary atresia with ventricular septal defect with right upper lobe artery directly arising from ductus arteriosus / Prakash Ramachandra / Sudesh Prabhu / Shreesha Maiya
- L29 Ductal stenting by carotid artery approach using an arterio-arterial loop in a case with abnormal arch anatomy – adversity to advantage / Prakash Ramachandra / Shreesha Maiya / Sudesh Prabhu
  - L30 Catheter based closure of large aorta to RV fistula / Mohd Mirza

- L31 Successful MitraClip implantation in an patient with recurrent mitral regurgitation after surgical mitral valve repair / Takehiro Nomura / Takashi Matsumoto / Arata Inoue / Masaki Nakashima / Yukiko Mizutani / Mie Sakurai / Norio Tada / Yoshiko Munehisa / Tatsushi Ootomo
- L32 Successful MitraClip implantation to the dehiscent mitral leaflets / Takehiro Nomura / Takashi Matsumoto / Masaki Nakashima / Arata Inoue / Yukiko Mizutani / Mie Sakurai / Norio Tada / Yoshiko Munehisa / Tatsushi Ootomo
- L33 Fracture of ADO 2 delivery cable during VSD device deployement – survival in the storm / Mohd Mirza / Shaad Abgari / Shahzad Alam / Azam Haseen / Shameem Gauhar
- L34 Post intervention threatened limb / Jayitri Mazumdar / Nihar Pathak / Sanjiban Ghosh / Aritra Mukherji / Indira Banerjee / Amitabha Chattopadhyay
- L35 Transcatheter embolisation of feeder vessel to a right ventricular mass / Arvind Singh / Kothandam Sivakumar
- L36 The first case of percutaneous treatment of Iliac artery aneurysm in infant with tuberous sclerosis / Han Byul Lee / Se Yong Jung / Ah Young Kim / Do Young Jung / Jae Hee Seol / Kee Soo Ha / Jae Young Choi
- L37 Transcatheter intervention for a rare cause of pulmonary arterial hypertension / Bharathap A P / Anand P Subramanian / Jayaranganath M
- L38 Congenital arterio-venous fistula between the right brachiocephalic artery and the superior vena cava / Mohammad Abumehdi / Vinay Bhole / Miland Chaudhari
- L39 Use of steerable long sheaths in pediatric cardiac interventions in anatomically difficult to access regions – two case studies / Jakob Olfe / Kehl Torben / Hauck Peer / Biermann Daniel / Mir Thomas / Mueller Goetz / Kozlik-Feldmann Rainer
  - L40 Successful trans-catheter closure of a complex bilateral coronary artery plus systemic artery confluence, to superior vena cava (arterio-venous) fistula / Ravindra Pawar / Srinath Reddy / Sachin Patil / Bharat Mudalgi



- L41 Complex decision making and multimodality imaging for consideration of baffle leak intervention in a patient post atrial switch / Heiko Schneider / Daniela Babic / Lukas M Meier / Matthias Greutmann / Oliver Kretschmar / Erik Holy
- L42 Latrogenic esophageal-pleural fistula treated with muscular VSD occluder / Pilar Jimenez-Quevedo / Carolina Espejo / Gabriela Tirado-Conte / German Armijo / Maria del trigo / Luis Nombela Franco
- L43 Follow up of patients with dissecting aortic aneurism de bakey IIIA treated with surgical debranching before implantation of thoracic aortic percutanoeus endoprotesis / Juan Francisco / Arreguín Porras / Jose Luis Lazaro / Guillermo Careaga Reyna
- L44 Percutaneous management of coronary sinus atresia / Sok-Leng Kang / Lee Benson
- L45 Challenging pulmonary vein cannulation in an infant with recurrent pulmonary vein stenosis / Sok Leng Kang / Lee Benson
- L46 Amplatzer duct Occluder II AS embolization to the left pulmonary artery in the infant. Pecutaneous rescue retrieval and closure of the persistent arterial duct / Valts Ozolins / Elina Ligere / Inta Bergmane / Lauris Smits / Normunds Sikora / Inguna Lubaua / Inga Lace
- L47 Percutaneous treatment of complex pseudoaneurysm of coarctation patch aortoplasty / Virginia Pascual-Tejerina / Angel Sanchez Recalde / Enrique Balbacid / Federico Gutiérre Larraya
- L48 Unusual recurrent right ventricular sarcoma / Wael Ghabra
- L49 Double stent chimney technique for percutaneous closure of a superior sinus venosus atrial septal defect with partial anomalous pulmonary venous drainage / Virginia Pascual-Tejerina / Angel Sanchez Recalde / Israel Valverde Perez / Federico Gutiérre Larraya
- L50 Utility of stereoscopic display in guiding complex transcatheter procedures / Joseph Vettukattil
- L51 Preterm PDA device closure with minimal interventions / Shaad Abqari

- L52 MitraClip procedure for the P2 prolapse severe mitral regurgitation patient after surgical repair with small left atrium / Yoshifumi Nakajima
- L53 Transcatheter fontan completion novel technique / Manish Chokhandre / Prasanna Salvi / Naveed Khan / Dinki Dharod / Lalit Choudhry / Suresh Joshi
- L54 Successful transcatheter closure of a coronary arterio-right ventricular fistula in a patient with repaired pulmonary atresia and ventricular septal defect / Ayako Ishikita / Ichiro Sakamoto / Toyokazu Uwatoku / Shintaro Umemoto / Yasushi Mukai / Hiroyuki Tsutsui
- L55 Three dimensional rotational angiography: its utility in closing pulmonary avmalformation / Neeraj Awasthy
- L56 Transcatheter closure of giant right ventricular outflow tract pseudo-aneurysm in an operated case of TOF with RV PA conduit with two years follow up / Ajay Mahajan
- L57 Closure of large tubular duct with amplatzer vascular plug- 2 by invagination technique / Supratim Sen / Priya Pradhan / Sneha Jain
- L58 Transcatheter treatment of scimitar with dual pulmonary venous drainage / Arvind Singh / Kothandam Sivakumar
- L59 RSOV device closure contrasting story of 2 cases / Rajasekhar Varada





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