7th Meeting of the World Society For Pediatric & Congenital Heart Surgery

1st Meeting of The African Society For Pediatric & Congenital Heart Surgery

Kenzi Rose Garden Farah, Marrakesh - Morocco

CONFERENCE GUIDE

June 15th - 19th, 2022

https://marrakesh2022.wspchs.org/

WORLD SOCIETY FOR PEDIATRIC AND CONGENITAL HEART SURGERY

Centre Hospitalier Universitaire Mohammed VI Marrakech

MARRAKECH جامعة القاضي عياض UNIVERSITÉ CADI AYYAD

كلية الطب والصيدلة - مراكش FACULTÉ DE MÉDECINE ET DE PHARMACIE - MARRAKECH

AFRICAN SOCIETY FOR PEDIATRIC AND CONGENITAL HEART SURGERY

Hearts for Life across the World

WORLD UNIVERSITY FOR PEDIATRIC AND CONGENITAL HEART SURGERY

Every child born anywhere in the world with a congenital heart defect should have access to appropriate medical and surgical care!

Join the World University for Monthly Webinars

https://wupchs.education

Vision & Mission

The ***Vision*** of the World University for Pediatric and Congenital Heart Surgery is that every health care professional, anywhere in the world involved in the care of patients with pediatric and congenital heart disease, should have access to ongoing education.

The ***Mission*** of the World University for Pediatric and Congenital Heart Surgery is to promote and facilitate access to education of surgeons and allied professionals involved in the care of patients with pediatric and congenital heart disease.

Our upcoming webinars will be...

19th Curriculum Webinar
Diseases of the Aorta 2:
Miscellaneous Conditions
Saturday, July 23, 2022

20th Curriculum Webinar
Congenital Mitral Valve Disease:
Global Perspectives on Treatment
Saturday, August 20, 2022

Partnering Organizations

Together we go far

The generous support of the Drs. Ivan & Milka Tchervenkov Endowment Fund of the Montreal Children's Hospital Foundation is acknowledged.

LA FONDATION DE L'HÔPITAL DE MONTRÉAL POUR ENFANTS
THE MONTREAL CHILDREN'S HOSPITAL FOUNDATION

The 8th Scientific Meeting of the

World Society for Pediatric and Congenital Heart Surgery

joins the 8th

World Congress of Pediatric Cardiology and Cardiac Surgery

8th World Congress of
Pediatric Cardiology
and Cardiac Surgery
AUGUST 27 – SEPTEMBER 1, 2023
WASHINGTON D.C.

+

WORLD SOCIETY FOR PEDIATRIC AND CONGENITAL HEART SURGERY

WSPCHS will host a comprehensive surgical track within the World Congress of Pediatric Cardiology and Cardiac Surgery! This track will be the 8th Scientific Meeting of the World Society.

Subspecialty Tracks

Congenital Cardiac Surgery • Ambulatory Cardiology • Cardiac Catheterization • Multimodal Imaging • Adult Congenital Heart Disease • Echocardiography
Cardiac Intensive Care • Cardiovascular Nursing • Cardiovascular Disease in the Neonate • Cardiac Anesthesia • Heart Failure and Transplantation • Trainee Track
Administration & Leadership • Neurodevelopment • Pulmonary Hypertension • Rheumatic Heart Disease • Global Cardiac Health • Electrophysiology • Advocacy
Sudden Cardiac Death in the Young • Basic Science • Fetal Cardiology • Special Sessions for Perfusionists • Big Data, New Technology & Artificial Intelligence
Quality Improvement • Cardiopulmonary Bypass, ECMO & Mechanical Circulatory Support

Join our mailing list at
WCPCCS2023.org

Connect and learn
#WCPCCS2023

THE MARRAKESH MEETING IS DEDICATED.

Robin H. Kinsley ~~from South Africa~~

Welcome

WELCOME MESSAGE

Dear colleagues and friends,

The World Society for Pediatric and Congenital Heart Surgery and the newly established African Society for Pediatric and Congenital Heart Surgery welcome you to the long-awaited Joint Scientific Meeting on June 15-19, 2022 in the fabulous city of Marrakesh, Morocco. This historic meeting brings together on African soil pediatric and congenital heart surgeons and colleagues from around the world in a spirit of mutual respect and cooperation.

The Program Committee has worked hard to put together an exciting program with invited faculty of world-renowned experts. There will be a Postgraduate Course on the topic of "Tetralogy of Fallot" and a Symposium on "Rheumatic Heart Disease". The three named lectures will be the "Stella & Richard Van Praagh Lecture" to be delivered by Diane Spicer, Gainesville, USA; the "Aldo R.C. Castañeda Lecture" to be delivered by Giovanni Stellin from Italy and the "Adib Jatene Lecture" by Mohammad Alfagih, Riyadh, Saudi Arabia. World Society President, Zohair Al-Halees, will deliver the Presidential Address. Also the African Society President, Frank Edwin, will deliver his Presidential Address. In addition there will be multiple oral presentations of the best abstracts submitted. The rest of the selected abstracts will be presented as posters. The Joint Scientific Meeting will also have a Featured Symposium: "How to Start a Congenital Heart Center in Resource Limited Settings". There will be updates on the World Database Pediatric and Congenital Heart Surgery as well as on the World University for Pediatric and Congenital Heart Surgery.

The Joint World Society and African Society Scientific Meeting is a fantastic occasion for pediatric and congenital heart specialists and their colleagues from the African continent and around the world to meet, share the latest scientific information, exchange ideas and establish friendships and professional connections that will greatly benefit our patients.

We welcome you to the historic city of Marrakesh, Morocco and invite you to become active members in the global coalition to improve care and education for children and adults with congenital heart disease.

Drissi Boumzebra
Local Host & Meeting President
Co-Chair, Program Committee
Marrakesh, Morocco

Zohair Al Halees
World Society President
Riyadh, Saudi Arabia

Frank Edwin
African Society President
Accra, Ghana

James D. St. Louis
Co-Chair, Program Committee
Augusta, USA

Christo I. Tchervenkov
Co-Chair, Program Committee
Executive Director & Founding President
Montreal, Canada

LOCAL HOST & MEETING PRESIDENT

Drissi Boumzebra, Marrakesh, Morocco

LOCAL COMMITTEE

CHAIR :

Drissi Boumzebra, Marrakesh, Morocco

Abdessamad Abdo, Marrakesh, Morocco
Soukaina Benbakh, Marrakesh, Morocco
Said Chraibi, Casablanca, Morocco
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Rachid El Haouati, Marrakesh, Morocco
Mustapha El Hattaoui, Marrakesh, Morocco
Nadia El Idrissi Slitine, Marrakesh, Morocco
Mouhcine El Mardouli, Marrakesh, Morocco
Saloua Karimi, Marrakesh, Morocco
Mohamed Laaroussi, Rabat, Morocco
Zahira Zouizra, Marrakesh, Morocco

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Frank Edwin, Accra, Ghana
Adel Elgamal, Mansoura, Egypt
Mouhcine El Mardouli, Marrakesh, Morocco
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Susan Vosloo, Cape Town, South Africa

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David Winlaw, Cincinnati, USA
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Liesl Zuhlke, Cape Town, South Africa

AFRICAN SOCIETY FOR PEDIATRIC AND CONGENITAL HEART SURGERY

CONSTITUTION

ARTICLE 1: NAME and LOGO

The name of this organization is the African Society for Pediatric and Congenital Heart Surgery hereafter abbreviated as the African Society.

Together we go far

ARTICLE 2: LANGUAGE

Insofar as the members of the African Society reside all over the world, the official language of the African Society shall be English.

ARTICLE 3: VISION, MISSION & OBJECTIVES

The **Vision** of the African Society is that every child born anywhere in Africa with congenital or acquired heart disease should have access to high quality medical and surgical care.

The **Mission** of the World Society is to promote the highest quality cardiac care to all patients with congenital or acquired heart disease, from the fetus to the adult, regardless of the patient's economic means, with an emphasis on excellence in outcomes based on education, collaboration, research and sustainability.

Objectives

Five clear objectives were identified – patient care; education; research; community engagement; and advocacy (the goal is to gain political priority for care of the patient with pediatric and congenital heart disease).

A. Patient Care

a. To improve the quality and practice of pediatric and congenital heart surgery as a specialty across Africa.

B. Education

a. To promote the professional and educational development of surgeons specializing and practicing pediatric and congenital heart surgery across Africa.

b. To promote global standards for the training and education of pediatric and congenital heart surgeons.

c. To provide a forum for the respectful exchange of knowledge in the form of scientific meetings and publications.

C. Research

a. To encourage basic and clinical research in pediatric and congenital heart surgery across Africa with emphasis on regional outcomes

b. To organize and maintain an African database on operations and outcomes in collaboration with the World Database for Pediatric and Congenital Heart Surgery.

D. Community Engagement

a. To promote the development of the African Society for Pediatric and Congenital Heart Surgery.

b. To promote collaboration across medical and surgical subspecialties.

c. To maintain an accurate database of pediatric and congenital heart surgeons and programs across Africa and promote mentorship between surgeons and centers.

E. Advocacy

a. To sensitize governments and organizations of the necessity to support and adequately fund pediatric and congenital heart surgery programs across Africa.

b. To interact and cooperate with the World Society for Pediatic and Congenital Heart Surgery and existing continental organizations in the pursuit of its mission and its objectives.

ARTICLE 4: INCORPORATION & HEAD OFFICE

The African Society shall be incorporated in Ghana and maintain a head office in Accra, Ghana.

ARTICLE 5: MEMBERSHIP

The African Society is founded by pediatric and congenital heart surgeons, it will be open for membership to all cardiac surgeons, physicians, and allied health care professionals from Africa and from anywhere in the world that have an interest in the development of pediatric and congenital heart surgery in Africa.

SECTION 1: TYPES OF MEMBERSHIP
There will be one type of membership: active. Anyone who became a member prior to or at the Inaugural Meeting of the African Society in 2022 and pays his or her dues will be acknowledged as a Founding Member of the African Society.

SECTION 2: Membership dues
The dues will provide simultaneous membership in the African Society and the World Society for Pediatric and Congenital Heart Surgery, including access to the World Journal. The dues are $ 200 US for low and low-middle income countries and $ 300 US for high middle and high-income countries.

SECTION 3: Membership obligations include providing accurate contact information, an exact address of practice, accurate academic affiliations, prompt payment of annual dues and involvement in the affairs of the African Society. Failure to pay the annual dues for 2 consecutive years will be considered resignation from the African Society.

SECTION 4: Voting Rights. Active Members present at any meeting of the members, shall each be entitled to one (1) vote on any matter or business submitted to such meeting.

ARTICLE 6: BOARD OF DIRECTORS

The Board of Directors of the African Society shall be composed of the President, First Vice-President, Second Vice-President, Secretary, Treasurer, Executive Director, and one Director per region of Africa (regions as per the African Union). Additionally, each member of the Board must be an Active Member of the African Society. The members of the Board must be nominated by the Nominating Committee and approved by the membership. Quorum for Board of Directors meetings shall be 6. All members of the Board of Directors have equal voting rights and decisions are made by a majority vote of those present. The President shall break a tie. The Board of Directors must meet at least once a year. The Board of Directors shall have an Executive Committee, which will be composed of the Officers of the African Society.

The terms for the members of the Board of Directors are four (4) years. Directors whose term has expired will hold their position until a new Director has been named in their place. Notwithstanding the foregoing, the members can vote to remove a Director prior to termination of his or her term due to such Director not having performed his or her duties adequately.

Members of the Board of Directors must participate in the affairs of the Board of Directors, and must be in good standing by paying annual dues and attending official meetings of the African Society.

Subject to the next paragraph, notice of a meeting of the Board of Directors shall be provided by the President, or on the instructions of the President, by the Executive Director, or Secretary of the African Society no less than three (3) weeks prior to such a meeting. Agenda for such a meeting shall be provided no less than one (1) week prior to such a meeting.

The Board of Directors shall be the governing body of the African Society, and shall have full power to manage all affairs of the African Society.

ARTICLE 7: OFFICERS

The Officers of the African Society must be nominated by the Nominating Committee and approved by the Board of Directors. The Officers of the African Society shall be the President, First Vice-President, Second Vice-President, Secretary, Treasurer and Executive Director. The President, First Vice-President and Second Vice-President must be from different regions of Africa. There are no such restrictions for the positions of Secretary, Treasurer and Executive Director. Subject to the approval of the members, as referred to at Article 6, the Officers of African Society shall be members of the Board of Directors.

SECTION 1: The President shall be the Chief Executive Officer of the African Society. The President shall preside over the meetings of the Board of Directors and the Annual Members meetings of the African Society. The President shall be the official representative of the African Society and shall be responsible for the dissemination of information to members. The President may certify documents of the African Society as having been issued by it.

SECTION 2: the First Vice-President shall assist the President as requested or needed. The First Vice President shall assume the duties of the President if the latter is incapable or unable to do so. The First Vice-President shall become President if he/she so desires upon completion of the terms of office and upon approval of the Board of Directors.

SECTION 3: the Second Vice-President shall assist the President and the First Vice-President as requested or needed. The Second Vice-President shall assume the duties of the First Vice-President if the latter is incapable or unable to do so. The Second Vice-President shall become the First Vice-President President upon completion of the terms of office and upon approval of the Board of Directors.

SECTION 4: the Secretary shall facilitate the work of the President and the Executive Director and will ensure that minutes are recorded for the meetings of the Board of Directors and the Members meetings of the African Society. Under the direction of the President and the Board of Directors, the Secretary shall facilitate the workings of the various standing councils and committees.

SECTION 5: the Treasurer under the direction of the President and the Board of Directors shall supervise the financial affairs of the African Society.

SECTION 7: the Executive Director shall be the Chief Operating Officer of the African Society and shall be appointed by the Board of Directors.

SECTION 8: Officers of the World Society can be removed by the Board of Directors prior to termination of their terms only for failure to perform their duties adequately. Officers can submit a resignation to the President or Executive Director if they wish to resign prior to the end of their term.

ARTICLE 8: TERMS OF OFFICE

The initial terms of office for the Founding Officers shall be 4 years from the founding of the African Society in 2020. This initial term is set in order to allow for the proper establishment and initial growth of the African Society. After this initial exceptional six (6) year term of office, the following terms of office shall come into effect:

SECTION 1: the President shall serve a non-renewable 2-year term starting at the conclusion of the Annual Business meeting of the members of the World Society that takes place during a biennial Scientific Meeting. The President may not hold any other position of Officer of the World Society with the exception of Executive Director, Editor or Historian. Upon the termination of office, the Immediate Past President will join the Nominating Committee. The Founding President will remain the Executive Director upon termination of office of Presidency.

SECTION 2: the First Vice-President shall serve a non-renewable 2-year term starting at the conclusion of the Annual Business meeting of the members of the World Society that takes place during a biennial Scientific Meeting. Upon termination of office the First Vice-President may accede to the position of President should him/her so desires.

SECTION 3: the Second Vice-President shall serve a non-renewable 2-year term starting at the conclusion of the Annual Business meeting of the members of the World Society that takes place during a biennial Scientific Meeting. Upon termination of office the Second Vice-President may accede to the position of First Vice-President should him/her so desires.

SECTION 4: the Secretary of the World Society shall be appointed to a four-year term, renewable once.

SECTION 5: the Treasurer of the World Society shall be appointed to a four-year term, renewable once.

SECTION 6: the Executive Director of the World Society shall be appointed to a variable term by mutual agreement with the Board of Directors of the African Society.

ARTICLE 9: COMMITTEES

In addition to the Board of Directors the African Society will have several committees. These are the following:

Constitutional Council
Membership Committee
Database Committee
Program Committee
Nominating Committee

SECTION 1: the Constitutional Council of the African Society was charged with writing the Constitution of the African Society.

SECTION 2: the Board of Directors of the African Society shall be composed of the Officers of the World Society and an additional member from each region of Africa. The Executive Committee shall meet at a time and place as called by the President or Executive Director. Quorum for such meetings should be six (6), and must include the President, Secretary and Executive Director.

SECTION 3: the Membership Committee shall suggest and seek individuals for membership.

SECTION 4: the Program Committee shall plan the scientific program for the meetings of the African Society.

ARTICLE 10: FINANCES

The African Society is a not-for-profit organization that shall be incorporated in Ghana.

SECTION 1: The fiscal year of the African Society shall be determined by the Board of Directors of the African Society.

SECTION 2: The annual dues shall be determined by the Board of Directors of the African Society.

ARTICLE 11: MEETINGS

The Board of Directors shall determine the time and place of the Annual meetings of the members of the African Society.

ARTICLE 12: CONSTITUTION AMENDMENTS

Suggested amendments to the Constitution, or suggestions for the enactment of by-laws, must be forwarded to the Board of Directors at least six months prior to a meeting of the African Society for consideration. The Board of Directors shall study and then accept or reject such amendments by a majority vote. A constitutional amendment will require a two-thirds vote in favor by the members at the members meeting.

ARTICLE 13: EXECUTION OF DOCUMENTS

Unless otherwise directed by the Board of Directors, documents shall be signed by the President.

ARTICLE 14: AUDITORS

An auditor will be appointed by the Board of Directors of the African Society.

ARTICLE 15: REMUNERATION

The African Society shall not remunerate directors, officers and members of councils or committees.

ARTICLE 16: CORPORATE SEAL

ARTICLE 17: DISSOLUTION

ARTICLE 17: DISSOLUTION

The African Society for Pediatric and Congenital Heart Surgery may be dissolved by a two-thirds vote of all of the members entitled to vote.

Respectfully submitted by:

Frank Edwin – President
Drissi Boumzebra, First Vice-President
Darshan Reddy, Second Vice-President
Susan Vosloo, Secretary
Adel Elgamal, Treasurer
Christo I. Tchervenkov – Executive Director

SCIENTIFIC MEETINGS OF THE WORLD SOCIETY FOR PEDIATRIC AND CONGENITAL HEART SURGERY

2007 - Inaugural Scientific Meeting, Washington, D.C., USA

2008 – World Summit, Montreal, Canada

2009 - 2nd Scientific Meeting, Cairns, Australia

2010 – July, Multi-Societal Meeting, Antigua, Guatemala

2010 – October, Regional Meeting, Shanghai, China

2011 – 3rd Scientific Meeting, Istanbul, Turkey

2012 – Multi-Societal Meeting, Lima, Peru

2014 – 4th Scientific Meeting, Sao Paulo, Brazil

2015 – February, Multi-Societal Meeting, Cartagena, Colombia

2015 – November, Regional Meeting, Kyoto, Japan

2016 – 5th Scientific Meeting, Abu Dhabi, UAE

2918 – 6th Scientific Meeting, Orlando, Florida, USA

2019 – June, Joint ECHSA/WSPCHS Meeting, Sofia, Bulgaria

2019 – November, Regional Meeting, Bali, Indonesia

2020 - 7th Scientific Meeting, New Delhi, India (Cancelled COVID-19)

2022- 7th Scientific Meeting, Marrakesh, Morocco

AFRICAN SOCIETY FOR PEDIATRIC AND CONGENITAL HEART SURGERY

2007- Washington, D. C., USA

2008 – Montreal, Canada

2009 – Cairns, Australia

2010 - Antigua, Guatemala

2011 – Istanbul, Turkey

2012 – Lima, Peru

2013 – Cape Town, South Africa

2014 – Sao Paulo, Brazil

2015 – Cartagena, Colombia

2016 – Abu Dhabi, UAE

2017 – Barcelona, Spain

2018 – Orlando, Florida, USA

2019 – Sofia, Bulgaria

2020 – Virtual

2021 – Virtual

2022 – Marrakesh, Morocco

WEDNESDAY JUNE 15, 2022

2 Pre-Meeting Workshops (Simultaneous)

1. Rheumatic Aortic & Mitral Valve Disease

PROGRAM

8:00	**Echocardiography of Rheumatic Mitral Valve Disease** **The Making of a Surgical Valve Repair Plan** Craig Sable, Washington, USA Nadia El Idrissi Slitine, Marrakesh, Morocco
8:30	**Discussion**
8:45	**Rheumatic Mitral Valve Repair : Surgical Techniques.** Sachin Talwar, New Delhi, India
9:15	**Discussion**
BREAK	**9:30 – 10:00**
10:00 – 12:00	**Hands-on Animal Model** Hani Najm, Cleveland, USA Sachin Talwar, New Delhi, India Amellal Mina, Rabat, Morocco. Darshan Reddy, Durban, South Africa. Khaled Boye, Nouakchott, Mauritania
LUNCH	**12:00 – 13:00**
13:00	**Echocardiography of Rheumatic Aortic Valve Disease** **The Making of a Surgical Valve Repair Plan** Craig Sable, Washington, USA Nadia El Idrissi Slitine, Marrakesh, Morocco
13:30	**Discussion**
13:45	**Rheumatic Aortic Valve Repair : Surgical Techniques with Focus on the Ozaki Procedure**. Hani Najm, Cleveland, USA
14:15	**Discussion**
14:30 – 16:30	**Hands-on Animal Model** Hani Najm, Cleveland, USA Sachin Talwar, New Delhi, India Amellal Mina, Rabat, Morocco. Darshan Reddy, Durban, South Africa Khaled Boye, Nouakchott, Mauritania

2. Tetralogy of Fallot

PROGRAM

8:00	**Benefits and Limits of Echocardiography in Tetralogy of Fallot** Justin Tretter, Cleveland, USA
8:20	**Advanced Imaging (CT, MRI) in Tetralogy of Fallot** Btissam Zouita, Marrakesh, Morocco
8:40	**Hands on TTE (Simples cases)** Justin Tretter, Cleveland, USA Mohamed El Jamili, Marrakesh, Morocco Abdenasser Drighil, Casablanca, Morocco Saloua El Karimi, Marrakesh, Morocco
BREAK	**9:30 – 10:00**
10:00	**Hands on TTE (Complex cases)** Justin Tretter, Cleveland, USA Mohamed El Jamili, Marrakesh, Morocco Abdenasser Drighil, Casablanca, Morocco Saloua El Karimi, Marrakesh, Morocco
LUNCH	**12:00 – 13:00**
13:00 – 13:30	**Pearls and Pitfalls in the Surgical Repair of Tetralogy of Fallot** Jose Fragata, Lisbon, Portugal
13:30 – 16:30	**Hands on 3D Printing Model** Jose Fragata, Lisbon, Portugal George E. Sarris, Athens, Greece James D. St Louis, Augusta, USA Miloud Belhaj, Casablanca, Morocco Younes Chikhaoui, Rabat, Morocco Mouhcine Abidallah, Casablanca, Morocco Abderaouf Essaidi, Jeddah, Saudi Arabia
BREAK	**16:30**
18:00 – 21:00	**Governing Council Meeting (By invitation only)**

POSTGRADUATE COURSE

SYMPOSIUM ON TETRALOGY OF FALLOT: FOCUS ON LATE PRESENTATION

THURSDAY, JUNE 16, 2022 – 8:00 TO 16:00

Session 1 8:00 – 10:00 (TOF 1)

Presentation and Diagnosis of Tetralogy of Fallot

CHAIRS :

Drissi Boumzebra, Marrakesh, Morocco
Frank Edwin, Accra, Ghana
James D. St. Louis, Augusta, USA

8:00	**Welcome from Local Host & Chairman, Program Committee** Drissi Boumzebra, Marrakesh, Morocco
8:05	**Welcome from World Society President** Zohair Al-Halees, Riyadh, Saudi Arabia
8:10	**Welcome from African Society President** Frank Edwin, Accra, Ghana
8:15	**Welcome from Executive Director** Christo I. Tchervenkov, Montreal, Canada
8:20	**Echo and Advanced Imaging for TOF** Craig Sable, Washington, DC, USA
8:40	**Effects of High Altitude on TOF Physiology and Late Presentation** Alexis Palacios-Macedo, Mexico City, Mexico
9:00	**Late Presentation of TOF: Chronic Cyanosis and Right Ventricular Hypertrophy** Michael Oketcho, Kampala, Uganda
9:20	**Practice Patterns for the Management of TOF in Developing Countries** Adel Elgamal, Mansoura, Egypt
9:40	**Long-term Follow-up and Management of Pulmonary Insufficiency** Gaurav Kumar, New Delhi, India
BREAK	**10:00 – 10:30**

Session 2 10:30 – 12:30 (TOF 2)

Management Strategies for Patients with TOF

CHAIRS : Abdelmalek Bouzid, Algiers, Algeria
Nadia El Idrissi Slitine, Marrakesh, Morocco
Vladimiro Vida, Padova, Italy

10:30	**Management and Technical Challenges for Neonatal/ Early TOF Repair** Mark Bleiweis, Gainesville, USA
10:50	**Management and Technical Challenges for Infant TOF Repair** George E. Sarris, Athens, Greece
11:10	**TOF with Absent PV Including Severe Airway Obstruction** Jeffrey P. Jacobs, Gainesville, USA
11:30	**Post Repair TOF and Pulmonary Valve Placement** Susan Vosloo, Cape Town, South Africa
11:50 – 12:30	**7th Stella & Richard Van Praagh Lecture** **Speaker :** Diane Spicer, Gainesville, USA **Title :** Anatomy of Tetralogy of Fallot **Introduced by** : Jeffrey P. Jacobs, Gainesville, USA
12:30 – 12:40	**Growing-up with Tetralogy of Fallot : A Personal Testimony** Chloe Searchinger, Washington, USA
LUNCH	**12:40 – 14:00**

Session 3 14:00 – 16:00 (ORAL 1)

(8 Oral Abstracts)

CHAIRS : Carl L. Backer, Lexington, USA
Sertac Cicek, Istanbul, Turkey
Mohamed Madani, Tangiers, Morocco

14:00	**Oral 1 Abstract 20** **Tetralogy of Fallot with Pulmonary Stenosis : Early and Late Results of Multisciplinary Treatment Over 30 Years** Pedro Becker; Rafael Selman; José Manuel Lyon; Rodrigo González; Francisco Garay; Luis Garrido; Santiago Besa; Oslando Padilla; Gonzalo Urcelay Universidad Catolica De Chile, Santiago, CHILE

14:15	**Oral 2** **Abstract 75** **Total Correction of Tetralogy of Fallot in Adult Patients : A Single Centre Experience** Mohd Radzif AR; Abdul-Aziz KA; Chee Chin H; Sivalingam S National Heart Institute, Kuala Lumpur, MALAYSIA
14:30	**Oral 3** **Abstract 50** **Major Post-Operative Complications and Mortality in Pediatric Cardiac Surgery. Surgeon Specific, Patient Specific or Healthcare System Attributable?** Marcelo Cardarelli MD,MPH; Mechelle Fleischer PA: Kathryn Jolda PA; William Novick MD; Inova Children Hospital; Department of Surgery, University of Tennessee Health Science Center–Global Surgery Institute, Memphis, Tennessee, USA
14:45	**Oral 4** **Abstract 103** **Outcomes After TOF Repair in 556 Consecutive Patients Operated in a Single institution in a Middle income Country** Néstor Sandoval, Ivonne Pineda, Pablo Sandoval, Albert Guerrero, Carlos Obando, Jaime Camacho, Carlos Villa, Juan Pablo Umaña, Martha Reyes, Tomas Chalela Fundaciòn Cardioinfantil, Bogotá, COLOMBIA
15:00	**Oral 5** **Abstract 91** **Results of Urgent Interventions in Patients with Tetralogy of Fallot within the First Three Months of Age** Amr Ashry 1,2; Arul Narayanan 3; Ramesh Kutty 1; Ramana Dhannapuneni 1; Rafael Guerrero 1; Attilio A. Lotto 1,4 1. Department of Paediatric Cardiac Surgery, Alder Hey Children's Hospital, Liverpool, UNITED KINGDOM; 2. Department of Cardiothoracic Surgery, Assiut University Hospital, Faculty of Medicine, Assiut University, Assiut, EGYPT; 3. Department of Paediatric Cardiology, Alder Hey Children's Hospital Liverpool, UNITED KINGDOM; 4. Faculty of Health, Liverpool John Moores University, Liverpool, UNITED KINGDOM
15:15	**Oral 6** **Abstract 65** **Long-Term Outcomes of Patients with Transposition of Great Arteries Undergoing Balloon Atrial Septostomy in Countries with Limited Resources: Are We Helping?** Sulafa Ali; Amna Gasim Sudan Heart Center, Khartoum, SUDAN

15:30	**Oral 7 Abstract 83** **10-year Experience of Right Ventricular Infundibulum Sparing Surgery** Yuriy Kulyabin; Alexey Zubritskiy; Nataliya Nichay; Ilya Soynov; Alexander Bogachev-Prokophiev; Alexey Arkhipov E.Meshalkin National medical research center, Moscow, RUSSIA
15:45	**Oral 8 Abstract 89** **Outcome of Total Correction of Isolated Total Anomalous Pulmonary Venous Return: A Retrospective Study** Shivang Saxena; Sabarinath Menon sctimst trivandrum;sctimst trivandrum Ahmedabad, INDIA
16:30 – 18:00	**Walking Poster Session**
17:00 – 19:00	**Editorial Board Meeting** **World Journal for Pediatric and Congenital Heart Surgery** **(Board Members Only)**
19:30	**Welcome Reception & Opening Ceremonies**

POSTGRADUATE COURSE

SYMPOSIUM ON TETRALOGY OF FALLOT: Focus on Late Presentation

FRIDAY, JUNE 17, 2022 – 8:00 TO 18:00

Session 4 8:00 – 10:00 (TOF 3)

Operative and Post-operative Considerations for Repair of TOF

CHAIRS :
Erle Austin, Louisville, USA
Valdano Manuel, Luanda, Angola
Younous Said, Marrakesh, Morocco
Abdelhamid Moustaghfir, Casablanca, Morocco

8:00	**Repair of Tetralogy of Fallot in Africa: Keeping it Simple** Darshan Reddy, Durban, South Africa
8:20	**Surgical Shunt Versus Percutaneous Intervention (PDA/RVOT stent)** Sivakumar Sivalingam, Kuala Lumpur, Malaysia

8:40	**Repair of TOF Following Palliative Procedures** Ignacio Juaneda, Cordoba, Argentina
9:00	**Conduit and Valve Choices for Pulmonary Valve Placement** Beatriz Furlanetto, Sao Paulo, Brazil
9:20	**Detrimental Effects of Cardiopulmonary Bypass During the TOF Repair** David Winlaw, Cincinnati, USA
9:40	**Management of Early and Late Arrhythmias Following TOF Repair** Mitchell Cohen, Fairfax, USA
BREAK	**10:00 – 10:30**

Session 5 | 10:30 – 12:30

CHAIRS : Darshan Reddy, Durban, South Africa
James K. Kirklin, Birmingham, USA
James D. St. Louis, Augusta, USA

10:30 – 11:15	**World Database for Pediatric and Congenital Heart Surgery : 5-Year Report**
11:15 – 11:25	**Introduction of African Society President by** Darshan Reddy, Durban, South Africa
11:25 – 11:55	**Presidential Address** Frank Edwin, Accra, Ghana
11:55 – 12:30	**4th Adib D. Jatene Lecture on Surgical Innovation** **Speaker :** Mohammad Alfagih, Riyadh, Saudi Arabia **Title : Congenital Cardiac Surgery, Game of the Rich: Can we Make it Affordable?** **Introduced by** Zohair Al-Halees, Riyadh, Saudi Arabia
LUNCH	**12:30 – 14:00**
12:45 – 13:45	**5th Symposium of the World Database for Pediatric and Congenital Heart Surgery : Focus on Africa**

CHAIRS : James D. St. Louis, Augusta, USA
Darshan Reddy, Durban, South Africa
Imed Frikha, Sfax, Tunisia

5th symposium of the World Database for Pediatric and Congenital Heart Surgery : Focus on Africa

CHAIRS :

James D. St. Louis, Augusta, USA
Darshan Reddy, Durban, South Africa
Imed Frikha, Sfax, Tunisia

12:45 – 12:50	**Vision of Session** Darshan Reddy, Durban, South Africa
12:50 – 13:00	**Lessons Learned concerning Public Awareness from the STS : Congenital Heart Surgery Database** Jeffery P. Jacobs, Gainesville, USA
13:00 – 13:10	**Impact of the ECHSA Database on the Clinical Practice of Congneital Heart Surgery** George Sarris, Athens, Greece
13:10 – 13:20	**Benefit of Involvement in an International Pediatric Congenital Heart Surgery Database** Susan Vosloo, Cape Town, South Africa
13:20 – 13:30	**How the WSPCHS can assist with structuring a platform for data acquisition across the African Continent?** James St. Louis, Augusta, USA
13:30 – 13:45	**Open Discussion**

SYMPOSIUM ON RHEUMATIC HEART DISEASE: FOCUS ON THE MITRAL VALVE

Session 6 14:00 – 16:00 (RHD 1)

CHAIRS :
Mohamed Touati, Algiers, Algeria
Wajih Maazouzi, Rabat, Morocco
Jose Fragata, Lisbon, Portugal

14:00	**Rheumatic Heart Disease : African and Global Challenges in the Current Era** Liesl Zuhlke, Cape Town, South Africa
14:20	**Impact of Screening Echocardiography on Rheumatic Heart Disease Outcome** Craig Sable, Washington, DC, USA
14:40	**Rheumatic Heart Disease : Does Secondary Prophylaxis Delay Valve Surgery?** Abdulrazaq S. Al-Jazairi, PhD, Riyadh, Saudi Arabia
15:00	**Echocardiography of the Rheumatic Mitral Valve in Children.** Mohamed Jamili, Marrakesh, Morocco
15:20	**The Functional and Dysfunctional Anatomy of the Mitral Valve** Ibrahim Delia, Zaria, Nigeria
15:40	**Panel Discussion**

BREAK 16:00 – 16:30

Session 7 16:30 – 18:00 (ORAL 2)
(6 Oral Abstracts)

CHAIRS :
Said Chraibi, Casablanca, Morocco
Mohammad Shihata, Jeddah, Saudi Arabia
Jorge Cervantes, Mexico City, Mexico
Youssef Ettoumi, Casablanca, Morocco

16:30	**Oral 9** **Abstract 19** **Continuous Subzero-Balance Ultrafiltration Extracts Twenty-Two inflammatory Mediators During Pediatric Cardiac Surgery with Cardiopulmonary Bypass** Joel Bierer MD; Roger Stanzel PhD CPC; Mark Henderson CPC; Suvro Sett MD; John Sapp MD; Pantelis Andreou PhD; Jean S. Marshall PhD; David Horne MD Dalhousie University, Halifax, CANADA
16:45	**Oral 10** **Abstract 14** **Surgical Correction of Tetralogy of Fallot Post Right Ventricular Outflow Tract Stenting: Initial Multicenter Experience in Argentina** Ignacio Juaneda; Alejandro Peirone; Rodrigo Molinas; Juan Díaz; Irma Azar; Hospital Privado Universitario de Cordoba, ARGENTINA; Hospital de Niños de Cordoba, ARGENTINA

17:00	**Oral 11** **Abstract 74** **Quality of Life in Children and Young Adults with Repaired Congenital Heart Disease: Mixed-Methods Approach** Chloe Searchinger; Hilda Tumwebaze; Haddy Nalubwama; Craig Sable; Peter Lwabi Children's National Hospital; Uganda Heart Institute, Kampala, UGANDA
17:15	**Oral 12** **Abstract 33** **Preliminary Experience with Surgical Delamination of the Fused Cuspal Apparatus of the Pulmonary Valve Aimed at Preserving the Valve and Annulus During Repair of Tetralogy of Fallot (TOF)** Anil Dharmapuram; Nagarajan Ramadoss; Gouthami Vejendla; Sudeep Verma; Nalluri Rhazane Krishna Institute of Medical Sciences, Hyderabad, INDIA
17:30	**Oral 13** **Abstract 39** **Impact of Major Aorto-Pulmonal Collaterals On Outcomes after Repair of Pulmonary Atresia and Ventricular Septal Defect** L. Wicklein 1; C Wolf 2; PP Heinisch 1; P. Ewert 2; J. Hörer 1,3; J. Cleuziou 1,3,4; M. von Stumm 1,3,4 1 Department of Congenital and Paediatric Heart Surgery, German Heart Center Munich, Technical University of Munich, School of Medicine, Munich, GERMANY; 2 Department of Cardiovascular Surgery, German Heart Center Munich, Technical University of Munich, School of Medicine, Munich, GERMANY; 3 Division of Congenital and Paediatric Heart Surgery, University Hospital of Munich, Ludwig-Maximilians-Universität, Munich, GERMANY; 4 Institute for Translational Cardiac Surgery (INSURE), German Heart Center Munich, Technical University of Munich, School of Medicine, Munich, GERMANY
17:45	**Oral 14** **Abstract 96** **Challenges in the Management of Pulmonary Atresia with Intact Ventricular Septum** Danielle Healey; Alyssia Venna; Priya Misra; Can Yerebakan; Murfad Peer; Pranava Sinha; Joshua Kanter; Craig Sable; Yves d'Udekem Children's National Hospital, Washington, DC, USA
20:00 – 22:00	**Gala Dinner**

SATURDAY, JUNE 18, 2022 – 8:00 TO 18:00

SYMPOSIUM ON RHEUMATIC HEART DISEASE : FOCUS ON THE MITRAL VALVE

Session 8 08:00 – 10:00 (RHD 2)

CHAIRS :
Anietimfon U. Etiuma, Calabar, Nigeria
Mustapha El Hattaoui, Marrakesh, Morocco
Osman Al-Radi, Jeddah, Saudi Arabia

8:00	**The Implications of the Dysfunctional Anatomy of the Mitral Valve for Repair** Darshan Reddy, Durban, South Africa
8:20	**Pediatric Mitral Valve Repair : How Durable is Repair Versus Replacement?** Sivakumar Sivalingam, Kuala Lumpur, Malaysia
8:40	**Pediatric Mitral Valve Replacement** Sachin Talwar, New Delhi, India
9:00	**Beating Heart Mitral Valve Surgery** Abdelmalek Bouzid, Algiers, Algeria
9:20	**Mitral Valve Balloon Dilation** Habib Gamra, Monastir, Tunisia
9:40	**Panel Discussion**
BREAK	**10:00 – 10:30**

Session 9 10:30 – 12:30

CHAIRS :
Marcelo Jatene, Sao Paulo, Brazil
Richard A. Jonas, Washington, USA
Christo I. Tchervenkov, Montreal, Canada

10:30 – 11:15	**World University for Pediatric and Congenital Heart Surgery : A Global Education Tool** Claudia Herbst, Vienna, Austria James K. Kirklin, Birmingham, USA Christo I. Tchervenkov, Montreal, Canada
11:15 – 11:25	**Introduction of WS President** By Marcelo Jatene, Sao Paulo, Brazil

11:25 – 11:55	**Presidential Address** Zohair Al-Halees, Riyadh, Saudi Arabia **Title :**
11:55 – 12:30	**7th Aldo R. Castañeda Lecture** **Speaker :** Giovanni Stellin, Padova, Italy **Title :** **Introduced by** Christo I. Tchervenkov
LUNCH	**12:30 – 14:00**

Session 10 14:00 – 16:00 Mixed Video/ Oral 3 Session

3 Videos, 3 Oral Abstracts)

CHAIRS : Abdounasr Drighil, Casablanca, Morocco
George E. Sarris, Athens, Greece
Hafil Abdulgani, Jakarta, Indonesia

14:00	**Video 1 Abstract 34** **Bicuspid Repair of Tetralogy of Fallot: How We Do It** Dekel Hagi, Sasson Lior Wolfson Medical Center, Holon, ISRAEL
14:15	**Video 2 Abstract 36** **Tetralogy of Fallot Repair After Prior RVOT Stenting** Perry S. Choi, James Lee, Mike R. Ma Stanford University, Lucile Packard Children's Hospital, Department of Cardiothoracic Surgery, Palo Alto, California, USA
14:30	**Video 3 Abstract 72** **Surgical Management of Tetralogy of Fallot With Absent Pulmonary Valve** Alexey Zubritskiy, Yuriy Kulyabin, Nataliya Nichay E.Meshalkin National Medical Research center, Novosibirsk, RUSSIA
14:45	**Oral 15 Abstract 59** **Clinical Outcomes of Tetralogy of Fallot Repaired in Adulthood: Experience From LMIC** Maha Inam, Laila Ladak, Fatima Ali, Mahin Janjua, Mahim Malik Aga Khan University, Karachi, PAKISTAN

15:00	**Oral 16 Abstract 106** **Analysis of Early and Late Outcomes of TAPVC Repairs Done Over Last 10 Years: A Retrospective Observational Study** Murtaza M; Devagourou V MCh AIIMS New Delhi India; AIIMS New Delhi, INDIA
15:15	**Oral 17 Abstract 40** **Outcomes of Transannular Repair of Tetralogy of Fallot with Contegra Monocuspid Patch: A Single-Center Experience** Aleksandra Wasiak; Radoslaw Jaworski; Mariusz Birbach; Michal Kozlowski; Malgorzata Mirkowicz-Malek; Joanna Friedman-Gruszczynska; Bohdan Maruszewski, Andrzej Kansy Department of Cardiothoracic Surgery, Children's Memorial Health Institute, Warsaw, POLAND
15:30 – 16:00	**Farewell Remarks** **WSPCHS 7th Scientific Meeting** **ASPCHS Inaugural Meeting** Drissi Boumzebra, Marrakech, Morocco Zohair Al-Halees, Riyadh, Saudi Arabia Frank Edwin, Accra, Ghana **Invitation to the 8th WS Scientific Meeting at the 8th World Congress of PCCS, Washington, D.C., USA August 27 – September 1, 2023** Jeffrey P. Jacobs, Gainesville, USA
16:00 – 17:30	**Annual Business Meeting (WSPCHS Members only)**

CHAIRS :

Zohair Al-Halees, Riyadh, Saudi Arabia
Frank Edwin, Accra, Ghana
Christo I. Tchervenkov, Montreal, Canada

19:00 – 21:30	**Presidential/Faculty Dinner Reception (By invitation)**

SUNDAY, JUNE 19, 2022 – 08:00 TO 11:00

Featured Symposium: How to Start a Congenital Heart Center in Resource Limited Settings

CHAIRS :

Frank Edwin, Accra, Ghana
David Overman, Minneapolis, USA
Nestor Sandoval, Bogota, Colombia
Jefferey P. Jacobs, Gainesville, Florida

8:00	**Welcome and Introduction of Keynote Speaker A Global Education Tool** Frank Edwin Accra, Ghana
8:05	**Keynote Presentation: Essential Components of a Congenital Heart Surgery Center in Resource Limited Settings** Carl L. Backer, Lexington, USA
8:30	**Overcoming the Financial Hurdles of Providing Infrastructure, Manpower Training/Retention, and the Cost of Treatment** Ahmed Afifi, Aswan, Egypt
8:45	**Starting a Pediatric Cardiac Center in Durban, South Africa : Our 5-Year Journey (2017-Present) in Establishing a Congenital Heart Centre Unit from Ground Zero to Complex Neonatal Surgery Including ECLS and Cardiac Transplantation in South Africa – A Private-Public Partnership Model** Darshan Reddy, Durban, South Africa
9:00	**Collaboration for Training Between Indigenous Teams** Drissi Boumzebra, Marrakesh, Morocco
9:15	**Importance of Following Surgical Outcomes with a Validated Database : Tracking Outcomes of the Center and Comparing to National Aggregate Data is of Critical Importance for Gaining Community and Governmental Support** James D. St. Louis, Augusta, USA
9:30	**Top 10 Lessons Learned from Pediatric Cardiac Surgery in Jamaica - Collaboration amongst multiple NGO's** Jeffrey P. Jacobs, Gainesville, USA
9:45	**Developing Comprehensive Cardiac Teams in Low Resource Settings - Experience from Uganda** Michael Oketcho, Kampala, Uganda,
10:00	**Setting-up of the Congenital Heart Surgery Program: The Nigerian Model** Uvie Onakpoya, Ife, Nigeria

10:15	**Implementation of pediatric and congenital heart disease treatment program in resource limited countries by NABADAT** Obaid Aljassim, Dubai, The United Arab Emirates
10:30	**Global Initiative for Children's Surgery** Bistra Zheleva, Minneapolis, USA
10:45	**Panel Discussion**

ANNUAL ASPCHS BUSINESS MEETING

11:00 – 12:00	**Constitution Adoption**

CHAIRS :

Frank Edwin, Accra, Ghana
Susan Vosloo, Cape Town, South Africa
Christo I. Tchervenkov, Montreal, Canada

FOUR TYPES OF ENTRY VISAS TO MOROCCO

SHORT VALIDITY VISA
The short-term visa allows a foreigner to enter the territory of the Kingdom of Morocco for reasons other than immigration, for a short stay uninterrupted or several short stays in the case of multiple entries.

The duration of each stay is from one to ninety days.

LONG VALIDITY VISA
The visa of long validity, over three months, is a visa of multiple entries issued by the Moroccan diplomatic or consular services, after consultation with the Ministry for Foreign Affairs and International Co-operation.

The period of validity of this visa cannot exceed one year and the duration of each stay is from one to ninety days.

A foreigner, holder of a long-term visa and wishes to stay in Morocco for more than three months, should request a registration card form the competent services of the General Directorate of National Security.

TRANSIT VISA
The transit visa authorizes a foreigner, travelling to a third State, to cross the territory of Morocco. This visa may be issued for one or two transits with duration of stay of each transit not exceeding 72 hours.

VISA ISSUED AT THE BORDER
In some exceptional cases, the Security Services may issue short-stay and transit visas at the Border Posts.

For countries where Morocco is not represented, requests must be made to the diplomatic mission accredited in that country or to the Honorary Consuls. In the absence of these representations, requests will be addressed directly to the Moroccan Ministry of Foreign Affairs and International Cooperation, Directorate of Consular and Social Affairs – Rabat (visa@maec.gov.ma) for a visa to be issued at the airport. Please check https://marrakesh2022.wspchs.org/index.php/visa/ for more information.

RATES FOR THE 7TH WSPCHS AND 1ST ASPCHS MEETING

EARLY REGISTRATION

Package	Accommodation Registration	Price
Meeting hotel: Kenzi Rose Garden 5 star	4 nights Registration (full package)	1148€
Hotel Al Andalouss 4 star (in front of the venue)	4 nights Registration (full package)	890 €
Special offer resident Hi income countries Hotel Al Andalouss 4 star (in front of the venue)	4 nights Registration (full package)	450 €
Registration (full package) without accommodation		400 €

https://marrakesh2022.wspchs.org/index.php/register-login/

COVID 19 MEASURES

ENTRY AND BORDERS

The Moroccan Government has announced the reopening of borders for commercial flights into and out of Morocco from the 7th of February.

WHAT ARE THE STEPS TO BE TAKEN BY TRAVELERS TO COME TO MOROCCO?
Passengers travelling to Morocco must present a vaccination pass OR negative PCR test result less than 72 hours old before boarding the plane.

It should be noted that all vaccine passes issued by other countries are accepted as long as they are valid in their country of emission.

Before boarding, passengers must present a health form, duly completed including the passengers address and two telephone numbers to locate them during their stay.

Upon arrival at airports, they will be screened by rapid tests. Random PCR tests will also be conducted for several groups of travelers and results will be communicated at a later date.

If the tests are positive, other preventive measures will be implemented.

WHAT MEASURES ARE IMPLEMENTED IN CASE OF POSITIVE CASES?

There are two types of positive cases: normal cases and difficult and critical cases. The people who are positive after their arrival with normal diagnosis will have to observe a sanitary confinement in their place of residence with a careful follow-up. As for difficult cases, they will be taken care of in hospitals, public or private, according to the national protocol in application.

WHAT ARE THE ENTRY REQUIREMENTS TO MOROCCO FOR CHILDREN?
There are no entry requirements for children under 12 years.

WHAT ARE THE SANITARY MEASURES TO BE RESPECTED?
As part of the fight against the spread of Covid-19 pandemic, Morocco ensures the application of health measures recommended by the World Health Organization (WHO) for safety and health of everyone.

For your safety and the safety of others during your stay in Morocco, it is necessary to:

- Wash your hands regularly for 20 seconds with soap or a hydro-alcoholic solution.
- Cough or sneeze into your elbow or into a single-use handkerchief and dispose of it in a garbage can.
- Maintain a distance of 1.5m with your interlocutor.
- Avoid hand gestures, hugs and kisses and make sure the mask is worn properly.
- Take all precautions when going out.

https://www.visitmorocco.com/en/travel-info/covid-19-travel-safely-to-morocco

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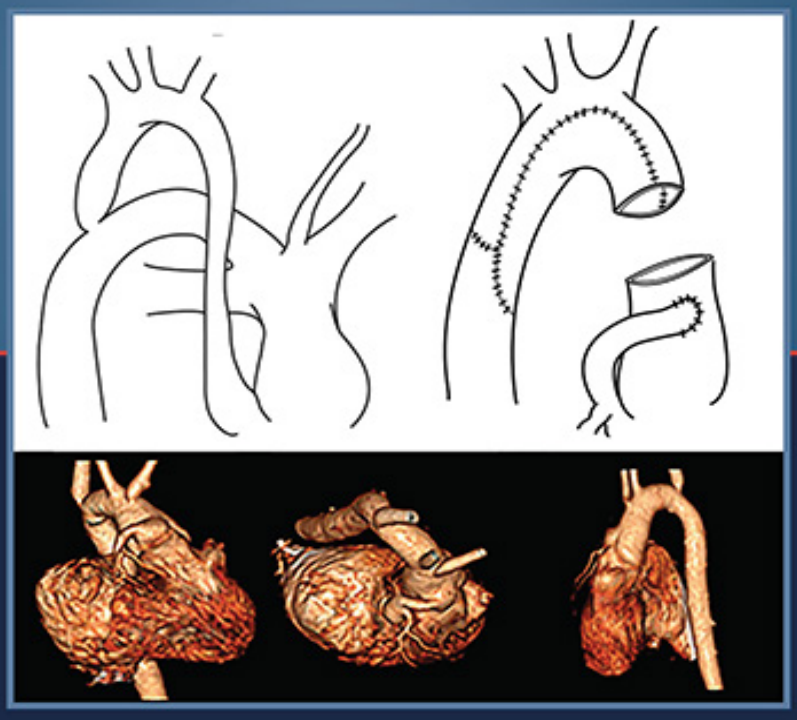

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ORAL ABSTRACT PRESENTATION

ORAL P1 Abstract 20

Tetralogy of Fallot with Pulmonary Stenosis : Early and Late Results of Multisciplinary Treatment Over 30 Years

Pedro Becker; Rafael Selman; José Manuel Lyon; Rodrigo González; Francisco Garay; Luis Garrido; Santiago Besa; Oslando Padilla; Gonzalo Urcelay
Universidad Catolica De Chile, Santiago, CHILE

Background: Surgical treatment of Tetralogy of Fallot with pulmonary stenosis (TOF PS) has evolved from palliative surgery to early primary repair, to which percutaneous procedures and attempts to maximize the preservation of the pulmonary valve have been added in recent years. Therefore, we decided to investigate the early and late results of the treatment of TOF PS with the most common techniques and with greater follow-up time during the last 30 years, so that they may serve as a reference against new options.

Methods: Patients with TOF diagnosis operated between January 1990 and December 2020 were retrospectively identified from our cardiac surgery database, excluding those with pulmonary atresia or associated atrioventricular canal. Their clinical and surgical records were reviewed. A survey was applied to investigate functional capacity (FC) and medication use. Mortality was investigated through the Civil Registry and reoperations through clinical records and the database of the hemodynamics laboratory. T-tests were performed for independent samples, Mann-Whitney and Fisher's exact probability; survival was analyzed using Kaplan-Meier with log rank test and Cox regression; a $p<0.05$ value was considered significant.

Results: The series consisted of 217 patients, median age of 9.2 months (p25-75: 3-9) at the time of first surgery. 110 (50,7%) were male. Nineteen patients (8.8%) received palliative surgery and 198 primary corrective surgery (91.2%). Of these, 51% (101/198) had a transannular patch (TAP), 28,8% (57/198) an infundibular patch and 20% (40/198) had a transatrial approach. Operative mortality was 0.5% (1/217) and overall mortality 3.7% (8/217). 29.9% of patients (58/194) had a reintervention, either surgical or catheter based. Patients with TAP had a greater need for pulmonary valve replacement (PVR) (p:0.015), a higher number of reoperations for right ventricular outflow tract obstruction (p: 0.06), and a higher number of catheter-based reinterventions (p:0.055). The risk of reintervention tends to double in those who had TAP (HR=2.015; p:0.079). 86.9% (119/137) are in FC I or II and 25% (34/137) take some medication. Survival at 5 years was 97.1% and 96.4% at 10, 20 and 30 years, with no difference between patients with or without TAP. The PVR-free survival in patients without TAP was 95%, 90.8%, 80.5% and 80.5% at 5, 10, 20 and 30 years, respectively, and in those with TAP it was 91.3%, 81.6%, 64.6% and 46.5% at 5, 10, 20 and 30 years, respectively (p:0.066).

Conclusion: Treatment of TOF PS, with or without preservation of the pulmonary valve allows a 96% survival at 30 years, with FC I or II in most patients. Reinterventions were necessary in almost a third of patients, being more frequent in those in which a TAP was performed. These results should serve as a basis of comparison against new strategies.

ORAL P2 Abstract 75

Total Correction of Tetralogy of Fallot in Adult Patients : A Single Centre Experience

Mohd Radzif AR; Abdul-Aziz KA; Chee Chin H; Sivalingam S
National Heart Institute, Kuala Lumpur, MALAYSIA

Objective: To review the outcome of late repair in adult patients with Tetralogy of Fallot (TOF) in a single institution in Malaysia

Methods: Retrospective review of all adult patients with late repair between 13th March 2000 and 31st December 2020 at the National Heart Institute in Kuala Lumpur, Malaysia. Our primary end point is early mortality and morbidities. Our secondary end points are freedom from reintervention and survival.

Results: One hundred and eight patients (50 male, 58 female) had surgery at a mean age of 29 years (±20.5 years). Fourteen patients (12.9%) were palliated with modified Blalock-Taussig shunt and one had percutaneous coiling of major aortopulmonary collateral arteries prior to surgery. A total of 79 patients (73.1%) had their native pulmonary valve preserved, 21 patients (19.4%) had pulmonary valve replacement and 4 patients (3.7%) had transannular patch respectively. The operative mortality rate was 2.7% (multi-organ failure n=2; myocardium failure, n=1). The mean follow-up of 39.6 months (±45 months). Freedom from reintervention is at 96% (n=104), reintervention included percutaneous transluminal balloon valvuloplasty (n=1); infundibular muscle resection (n=1); occlusion of residual VSD (n=1). At 12 years postoperatively, 99% of patients had New York Heart Association (NYHA) functional status class I or II and all of them were in sinus rhythm.

Conclusion: Late total correction of Tetralogy of Fallot in adults is associated with a low operative mortality and morbidity. They remain in good functional class and free of arrythmia at 10-year follow-up. However chronic hypoxia and severe hypertrophied right ventricle are related to occurrence of arrythmia and right ventricular dysfunction and warrant a careful follow up.

ORAL P3 Abstract 50

Major Post-Operative Complications and Mortality in Pediatric Cardiac Surgery. Surgeon Specific, Patient Specific or Healthcare System Attributable?

Marcelo Cardarelli MD,MPH; Mechelle Fleischer PA: Kathryn Jolda PA; William Novick MD; Inova Children Hospital; Department of Surgery, University of Tennessee Health Science Center–Global Surgery Institute, Memphis, Tennessee, USA

Background: Outcomes in pediatric cardiac surgery are known to be superior in high income countries (HIC) compared to low-and middle-income countries (LMIC). While patients can be risk stratified (e.g.: STAT risk score), variability between surgeons (e.g.: training, seniority, etc..) or between Health Systems (HS) e.g.: availability of trans-esophageal echocardiogram (TEE) or other system resources (e.g.: human resources expertise, blood bank or laboratory efficiency, etc..) are difficult to risk assess. We hypothesized that by comparing surgeon specific and patient matched outcomes in HIC versus LMIC, results could be a reflection on the HS.

Methods: In a retrospective analysis we collected all patient data for a single surgeon operating concomitantly in two types of HS, the United States and LMIC. Patients' data was extracted from STS database and an NGO's database. To address differences between patients in each group we derived a one-to-one propensity matching score.

Results: Between December 2014 and December 2020, a total of 418 pediatric cardiac operations were performed by the same surgeon in the USA (Group A) and in six LMICs (Group B). A pool of 245 patients qualified as STAT procedures according to STS risk categories, overall mortality was 4% (n=10). Outcomes for a propensity matched cohort of 110 patients (n=55 per group) were compared. Matched sub-groups were well balanced for measured peri-operative variables. Major post-operative complications (21.8% vs 67.3%) ($p<.0001$) and Mortality (0% vs 5.5%) (ns) were higher for Group B. TEE use was 59.5% vs 0% respectively ($p<0.00001$).

Conclusions: Our limited study seems to indicate that given the same surgeon and matched patients the higher rates of post-operative complications and mortality in LMICs are likely attributable to shortcomings in HS. While broader studies should be carried out, some consideration to these findings should be given before surgeon specific results are made available to the public.

ORAL P4 Abstract 103

Outcomes After TOF Repair in 556 Consecutive Patients Operated in a Single institution in a Middle income Country

Néstor Sandoval, Ivonne Pineda, Pablo Sandoval, Albert Guerrero, Carlos Obando, Jaime Camacho, Carlos Villa, Juan Pablo Umaña, Martha Reyes, Tomas Chalela
Fundaciòn Cardioinfantil, Bogotá, COLOMBIA

Background: Tetralogy of Fallot is one of the most common cyanotic congenital heart diseases. The treatment has evolved from Systemic to pulmonary shunts to early repair with valve-sparing techniques when possible. The results have improved over time with low mortality especially in the ECMO era even in late-presenting patients. The objective of this study is to report the outcomes after TOF repair in 556 consecutive patients operated in a single institution in a Middle-Income country.

Methods: Retrospective cohort of patients underwent TOF repair. All the procedures were performed between January 2001 and January 2022. A descriptive analysis was performed of the preoperative and intraoperative variables, postoperative outcomes, and late pulmonary valve replacement. A descriptive analysis of the data was done, continuous variables are expressed as mean ± standard deviation or median with according to the result the type of distribution gave it by Shapiro–Wilk test, categorical variables are presented as absolute frequencies and proportions. Differences between variables were performed by chi-square or Fisher's exact test and Wilcoxon-Mann-Whitney test, comparisons analysis for mortality and pulmonary valve replacement were done. we consider statistical significance p-value less than 0.05.

Results: In 21 years of experience, we identify 556 patients underwent TOF repair, median age was 19.4 months (11.4-51.4), 51.6% were female, malnutrition was present in 319 (57.4%). Median preoperative oxygen saturation was 87%; chromosomal abnormalities were present in 8.1%, surgical mortality was 5.4% (19/352) in the early experience, but decreased to 1.5% (3/204) after ECMO implementation (P=0.023). No significative statistical differences were found in the mortality group except for Cardiopulmonary bypass time (99 vs 124 mins, p=0.004). 31 of 534 (6.2%) survivors returned to our institution for pulmonary valve replacement (PVR), with median 102 months (80-134.2) between TOF repair and PVR Figure 1. 4/31 patients received transannular patch with neo-valve, 13/31 received transannular patch without valve and 14/31 had a complete repair with valve preservation (Hegar dilation of the valve). There were not statistical differences between type of TOF repair and time of PVR Table 1.

Conclusion: TOF repair is a safe procedure, even in late-presenting patients as is commonly seen in Middle income countries. As previously described in the literature there is a high risk of requiring PVR late after repair, so close follow-up is advisable although not always easy. With ECMO implementation the early mortality can be dramatically reduced.

ORAL P5 Abstract 91

Results of Urgent Interventions in Patients with Tetralogy of Fallot within the First Three Months of Age.

Amr Ashry 1,2; Arul Narayanan 3; Ramesh Kutty 1; Ramana Dhannapuneni 1; Rafael Guerrero 1; Attilio A. Lotto 1,4

1. Department of Paediatric Cardiac Surgery, Alder Hey Children's Hospital, Liverpool, UNITED KINGDOM;
2. Department of Cardiothoracic Surgery, Assiut University Hospital, Faculty of Medicine, Assiut University, Assiut, EGYPT;
3. Department of Paediatric Cardiology, Alder Hey Children's Hospital Liverpool, UNITED KINGDOM;
4. Faculty of Health, Liverpool John Moores University, Liverpool, UNITED KINGDOM

Background: A percentage of neonates born with tetralogy of Fallot, have a duct dependent pulmonary circulation, whereas some young infants may experience severe cyanotic spells, both requiring urgent procedures to increase pulmonary blood flow. Different strategies are available and employed to treat these patients, each addressing the anatomical substrates responsible for the reduced pulmonary blood flow.

Methods: Review of our experience in children with Tetralogy of Fallot presenting before three months of age, treated with either surgical or transcatheter interventions between Jan 2015 and Dec 2021. We identified 42 babies requiring urgent procedures during that period: 19 surgical patients in Group 1 and 23 transcatheter patients in Group 2.

Results: Median age and weight were 38 days (IQR 19-70 days) and 3.7 Kg (IQR 3.4-4.2 Kg) in the surgical Group 1 and 29 days (19-43 days) and 3.2 Kg (2.9-3.7 kg) in transcatheter Group 2. Group 1: 9 babies (21.4%) underwent complete surgical repair, 8 patients (19%) required modified BT shunt, 1 patient (2.4%) had isolated transannular patch and 1 patient (2.4%) received a RV-PA conduit and PA plasty. Group 2: 9 babies underwent PDA stent (21.4%), 9 patients had RVOT stent (21.4%), 3 cases required pulmonary valve balloon dilatation (7%) and 2 RVOT balloon dilatation (4.8%). Median ICU stay and hospital stay were: 4 days (3-8) and 9 days (7.5-20) in Group 1, while 1 day (1-1.5) and 5 days (3-15.5) in group 2. Six patients (14.3%) were referred for urgent surgical palliation after unsuccessful transcatheter interventions. The 9 babies who were primarily completely repaired had a median age and weight of 59 days (31-74) and 4.4 kg (3.8-4.7) respectively. No patient died in surgical Group 1, while there was 1 death (2.4%) in the transcatheter Group 2 due to cerebral infarction following ECMO rescue. Reviewing the indication for each patient to either a surgical or a transcatheter intervention, there was a match between the anatomical substrate and the procedure chosen. Median follow up time was 5.4 years (3.5-6.2) in Group 1 and 3.2 years (1.9-4.6) in Group 2. In the transcatheter Group 2, median time to full repair was 10 months (6-12), while it was 13 months (10-19.5) in surgical palliated patients in Group 1. One patient (2,4%) in Group 1 needed surgical reintervention after a salvage procedure before full repair, while 5 patients (11.9%) in Group 2 required catheter reinterventions before proceeding to full repair. No patients needed further intervention following complete repair.

Conclusion: Our experience shows that in patients with tetralogy of Fallot needing urgent procedures early in life, good results are achieved with either surgical or catheter palliation, when indications for each procedure address specific anatomical features. In patients with favorable anatomy, full repair can be performed as primary procedure with good long-term outcome.

ORAL P6 Abstract 65

Long-Term Outcomes of Patients with Transposition of Great ArteriesUndergoing Balloon Atrial Septostomy in Countries with Limited Resources: Are We Helping?

Sulafa Ali; Amna Gasim
Sudan Heart Center, Khartoum, SUDAN

Background: Transposition of great arteries with intact ventricular septum (TGA/IVS) is a common congenital heart disease (CHD) presenting immediately after birth with severe cyanosis and heart failure needed urgent intervention. Palliative cardiac catheterization (CC) procedures are life-saving., however, they need to be followed by surgical correction which requires surgical and intensive care facilities that challenge the limited resource settings. We report our experience with palliative CC to patients with TGA/IVS.

Methods: A cross sectional study was carried at Sudan Heart Center (SHC) to evaluate immediate and long-term outcomes for patients who had balloon atrial septostomy (BAS) for TGA/IVS from 2010-2021. Hospital records were reviewed to collect clinical data and procedure details. Data on long term follow up was collected from outpatient clinic records and through phone calls to families.

Results: Seventy-five patients with TGA/IVS were studied. The age of presentation ranged between 1 day to 3 months, 40% presented after the age of 2 weeks. Comorbidities were common including sepsis (10%), prolonged hospital stay (5%), and bradycardia (2%). Oxygen saturation ranged from 0-70%. None of the patients was non prostaglandins. The procedures were guided by fluoroscopy and echocardiography, done through the femoral vein in most patients (90%) and from umbilical vein in 10% of patients. Success rate for the procedure was 96%. Failed procedures were due to difficult vascular access in 2 patients and left atrial isomerism in 1 patient. None of the patients had ductal stenting. Most patients (90%) were discharged to the ward and 10% needed intensive care admission. Procedure related death occurred in one case (1.3%) who had cardiac arrest before the procedure, resuscitated and the procedure was done then the patient arrested again and could not be resuscitated. Other complications occurred in 3 patients (4%); included transient bradycardia, vascular injury and transient limb ischemia each in one patient. The patients were followed up to 8 years after the procedure. Only 50% of patients managed to do the corrective surgery (abroad) after a mean period of 4 months. About a third of patients had arterial switch, in 50% of these it was preceded by pulmonary artery banding. The other 2/3rds had atrial switch operation. Of those who had surgery the hospital mortality rate was 34% and all those who survived (66%) are currently well with no residual lesions. Thirty seven percent of those who died had the BAS at the age of one month or more. For those who did not have surgery, mortality rate was 95%. Two patients are still alive at the age of 8 years.

Conclusion: Palliation for TGA/IVS is possible in resource limited settings despite later referral. However, surgery is often not possible or done late with a high mortality. Early diagnosis and availability of prostaglandin E1 are needed in order to improve outcomes Ductal stenting can improve outcomes as more arterial switch operations can be performed at a later age. Improving surgical and intensive care settings through collaboration with centers of excellence are required to improve outcomes for these patients.

ORAL P7 Abstract 83 10-year Experience of Right Ventricular Infundibulum Sparing Surgery.

Yuriy Kulyabin; Alexey Zubritskiy; Nataliya Nichay; Ilya Soynov; Alexander Bogachev-Prokophiev; Alexey Arkhipov; E.Meshalkin
National medical research center, Moscow, RUSSIA.

Objective: This retrospective analysis summarizes 10 years of experience in tetralogy of Fallot surgical repair with right ventricular infundibulum sparing strategy (RVISS) and transannular patch (TAP), comparing early and late outcomes.

Methods: A total of 463 patients aged less than 3 years were included in the analysis and divided into 2 groups: complete repair with RVISS (304 patients), and complete repair with TAP (159 patients). The median follow-up period was 56 months (IQR: 39 to 68 months). A total of 158 patients (63 RVISS and 95 TAP) underwent magnetic resonance imaging (MRI) at the follow-up for evaluation of right ventricular (RV) morphology and functional assessment.

Results: Early mortality was 2.1%. The signs of early heart failure were progressively increased in the first hours after repair in the TAP group; however, in the next stages all hemodynamic parameters did not significantly differ from the RVISS group. Late mortality was 0.28%. According to the MRI assessments, the ejection fraction of the entire RV and its various parts was significantly higher in the RVISS group. No significant difference was found between the groups with regards to the freedom from surgical reoperations (p=0.072) and from catheter reinterventions (p=0.137).

Conclusion: RVISS improves the hemodynamic results of repair in the early postoperative period and leads to improvement in the systolic and diastolic RV function that persists at long-term period.

ORAL P8 Abstract 89 Outcome of Total Correction of Isolated Total Anomalous Pulmonary Venous Return: A Retrospective Study.

Shivang Saxena; Sabarinath Menon
sctimst trivandrum;sctimst trivandrum
Ahmedabad, INDIA

Background: Isolated total anomalous pulmonary venous connection (TAPVC) is a rare congenital heart disease with 1-1.5% incidence. In the past decade, management of isolated TAPVC has changed considerably in terms of surgical technique and myocardial protection techniques, translating into better post-operative outcomes. The current study aims to retrospectively analyze the impact of various peri-operative factors on immediate and late post-operative outcomes for cases of isolated TAPVC.

Methods: This retrospective study was conducted in SCTIMST, Trivandrum. Peri-operative and follow up data for 242 patients who had undergone repair for isolated TAPVC on or between 1st January 2008 to 31st December 2018 was collected from our institutional database. Survival analysis was performed using Kaplan Meier, and the survival rate was compared across different groups.

Results: 25.62% (n=62) of the patients who underwent surgical correction of TAPVC were neonates and,20.66%(n=50) had weight less than 3 kg. These patients had a significantly high post-operative inotropic score and duration of ICU stay ($p<0.001$) but no significant impact on mid-term and long-term survival.
45.87%(n=111) of our patients had pulmonary venous obstruction pre operatively. Almost all patients with Infra-cardiac anatomy had obstructive TAPVC (97%). The overall mortality was higher in patients with pulmonary venous obstruction (n=17, $p<0.001$) and had a significant impact on long term survival of the patients. Our surgical techniques were based upon the types of TAPVC.111(45.87%) patients underwent primary Sutureless repair. The surgical technique did not have any significant effect on overall survival. There were 20 mortalities in our study (9%) and 7 reinterventions.

Conclusion: Pulmonary venous obstruction is the single most crucial factor determining overall survival. Weight less than 3 kilograms affects the early post-operative outcomes but does not affect overall survival. The Primary Sutureless technique for repairing TAPVC provides no additional benefit over the conventional technique in early and late outcomes.

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ORAL P9 Abstract 19

Continuous Subzero-Balance Ultrafiltration Extracts Twenty-Twoinflammatory Mediators During Pediatric Cardiac Surgery with Cardiopulmonary Bypass

Joel Bierer MD; Roger Stanzel PhD CPC; Mark Henderson CPC; Suvro Sett MD; John Sapp MD; Pantelis Andreou PhD; Jean S. Marshall PhD; David Horne MD; Dalhousie University, Halifax, CANADA

Background: Cardiopulmonary bypass (CPB) is associated with complement-mediated systemic inflammation in patients undergoing cardiac surgery. This innate inflammatory response can yield cardiopulmonary and vasomotor dysfunction which is prohibitive to a timely post-operative recovery. Intra-operative ultrafiltration has been hypothesized to remove inflammatory factors (< 66 kDa) from the patient's circulation during CPB but only a limited number of mediators have been directly detected in the ultrafiltration effluent. This study aimed to identify a comprehensive collection of inflammatory mediators extracted by continuous subzero-balance ultrafiltration (SBUF) in a pediatric population.

Methods: Pediatric patients undergoing cardiac surgery with CPB and SBUF were enrolled in a prospective observational cohort study. Arterial blood (End-CPB Plasma) and ultrafiltration effluent samples (End-CPB Effluent) were taken at the end of CPB. Samples were analyzed with Luminex® to yield the concentrations of 39 inflammatory mediators from the complement, cytokine, chemokine, leukocyte adhesion and pulmonary vasoconstriction pathways. Sieving coefficients ([End-CPB Effluent Mediator] / [End-CPB Plasma Mediator] x 100%) were calculated to quantify the degree of mediator extraction. All parameters are reported as medians (IQR). The association between mediator extraction (extracted vs. not extracted) and mediator molecular mass (<66kDa vs. >66kDa) was assessed by the Chi-Squared test with Yates' correction.

Results: Twenty patients were enrolled with an age of 4.0 (0.2–12.0) months, weight of 5.2 (3.4–8.1) kg and a spectrum of congenital heart diseases with STAT scores of 2 (2–4). The CPB time was 193 (158–272) minutes, SBUF effluent volume was 160 (103–228) ml/kg, and the final CPB volume balance was -9 (-3 – -27) ml/kg. Twenty-two mediators were extracted by SBUF with a range of Sieving coefficients: C3a (1019%; 788% – 1348%), C5a (46%; 17% – 198%), TNF (11%; 0% – 25%), IL-1β (75%; 46% – 100%), IL-1Ra (32%; 26% – 53%), IL-2 (27%; 21% – 43%), IL-6 (6%; 2% – 10%), IL-10 (0.1%; 0% – 1.5%), IL-12 (100%; 46% – Inf), IL-17A (60%; 49% – 82%), IL-33 (7%; 0% – 18%), TRAIL (4%; 3% – 8%), GM-CSF (19%; 11% – 26%), IL-8 (52%; 39% – 66%), CCL2 (44%; 31% – 55%), CCL3 (24%; 10% – 56%), CCL4 (20%; 7% – 26%), CXCL1 (16%; 0% – 37%), CXCL2 (13%; 7% – 20%), CXCL10 (19%: 16% – 23%), ICAM-1 (1%; 1%-2%) and ET-1 (23%; 2% – 36%). C1q, C2, C3, C3b, C4, C4b, C5, CFB, CFH, CFH, IL-1α, IFN-γ, CCL5, L-Selectin, E-Selectin, P-Selectin and VCAM-1 were not detected in the ultrafiltrate effluent. Mediator extraction by SBUF was significantly associated with molecular mass < 66kDa (Chi2 statistic = 18.8, Chi2 statistic with Yates' correction = 16.0, $p < 0.0001$).

Conclusions: Continuous SBUF extracts 19 pro-inflammatory mediators, endothelin-1 and the anti-inflammatory factors IL-10 and IL-1Ra throughout pediatric CPB. The range of Sieving coefficients illustrates a differential extraction of mediators based on their molecular mass. Quaternary protein interactions and biochemical properties may also contribute to a mediator's Sieving coefficient. Importantly, the noxious complement factors C3a and C5a were extracted with high efficiency. These results suggest that SBUF can potentially function as an immunomodulatory therapy to dampen CPB-associated inflammation and enhance post-operative recovery for pediatric patients undergoing cardiac surgery. Further translational investigations are required to assess the clinical impact of inflammatory mediator extraction by SBUF.

ORAL P10 Abstract 14

Surgical Correction of Tetralogy of Fallot Post Right Ventricular Outflow Tract Stenting: Initial Multicenter Experience in Argentina

Ignacio Juaneda; Alejandro Peirone; Rodrigo Molinas; Juan Díaz; Irma Azar; Hospital Privado Universitario de Cordoba, ARGENTINA;Hospital de Niños de Cordoba, ARGENTINA

Background: Initial management of patients with tetralogy of Fallot (TOF), unfavorable anatomy and reduced pulmonary blood flow is controversial and continues to be a clinical challenge. Pulmonary to systemic shunt anastomosis or primary correction in neonates and small infants is associated with higher morbi-mortality and increased number of reoperations. Right ventricle outflow tract (RVOT) stenting as initial palliation has emerged as an attractive alternative. We report our initial surgical experience with TOF patients operated after previous RVOT stenting.

Methods: We present a Retrospective, descriptive and observational study from June 2018 to December 2021. We included 12 patients with severe TOF after RVOT stenting referred for surgical correction at two Argentinian institutions. Procedures were performed under cardiopulmonary bypass, bi-caval cannulation, moderate hypothermia and crystalloid cardioplegia. The stent was removed through a RVOT incision (trying to preserve the pulmonary annulus if possible), reconstructed with bovine pericardium and if necessary, a 0.1mm Gore-Tex monocusp valve was created. If coronary anomalies were present, a conduit was utilized. We evaluated all surgical interventions, complications and mortality at 30 days.

Results: Patients age and weight at surgery were 5.27 months (4 – 8) and 6,1kg (5-8.9) respectively. Surgical technique resulted in complete RVOT stent extraction in 50% of patients. Left pulmonary artery was augmented in 8 patients, and 1 patient required bilateral pulmonary arteries patch augmentation. A transannular patch was placed in 8 patients, 3 patients required a right ventricle to pulmonary artery conduit and in the remaining patient, the pulmonary valve was preserved. Length of stay and ventilation time were 13.6 days (5-27) and 44.8hs (6-44) respectively. Cardiopulmonary bypass and aortic cross clamp times were 141.5min (116-165) and 118.5min (102-144) respectively. The mean time since RVOT stent implantation to surgical correction was 4 months (2-7). Post-operatory Doppler-color echocardiogram revealed mild pulmonary insufficiency with a gradient less than 30mmHg in 83.3% of patients. Morbidity included 1 patient developing chylothorax, 2 wound infection, 1 peritoneal dialysis, and patient 1 major bleeding. There was no mortality. Mean follow-up time of this cohort was 23.16month (1-41).

Conclusions: Surgical correction of severe TOF after RVOT stenting is an effective alternative, achievable without increase in morbidity and mortality. Feasibility of stent extraction is related with the time since implantation. Patients with coronary anomalies in the RVOT can be stented, however the right ventricle to pulmonary artery conduit insertion is more complex. Increased number of patients and longer follow up time are needed to confirm these initial results.

ORAL P11 Abstract 74 Quality of Life in Children and Young Adults with Repaired Congenital Heart Disease: Mixed-Methods Approac

Chloe Searchinger; Hilda Tumwebaze; Haddy Nalubwama; Craig Sable; Peter Lwabi ; Children's National Hospital; Uganda Heart Institute, Kampala, UGANDA

Introduction: Even though the global birth rate of congenital heart disease (CHD) has remained constant, advances in cardiac surgery have led to a decline in death rate by 60.4% in the last two decades. Though reduced health-related quality of life (HRQOL) in children, adolescents and young adults with CHD is well-documented in high-income countries (HIC), there are no studies from low-income countries (LIC).

Background: This study which is on target to be completed in June and July 2022 in Uganda in collaboration with the Uganda Heart Institute (UHI), will be the first cardiac-HRQOL study in a LIC and in sub-Saharan Africa. In Uganda, the country with the third highest birthrate in the world, the absolute birth prevalence of CHD is even greater than larger, high-income countries such as the United States. The growth of the Uganda Heart Institute open heart surgery and catheterization programs (established in 2007 in Kampala), in combination with NGO support for sending patients abroad for surgery, has led to a substantial number of patients (> 1000) living with repaired CHD in Uganda. This new, expanding and largely unstudied group of children and young adults with repaired CHD is at risk for negative impacts on HRQOL due to their unmet need for lifelong care for residual CHD symptoms in resource-constrained environments with decreased access to healthcare services. With the overlap of poverty, high fertility rates, limited access to care, and more traditional gender roles resulting in a unique profile of CHD in LMIC, assessing the HRQOL of women of childbearing age with CHD in LMIC must be investigated.

Methods: Our current study is a cross-sectional mixed methods study with age-matched healthy siblings serving as controls to CHD patients. The Uganda Heart Institute will recruit 120 CHD pediatric (age 5 – 18) and young adult (age 19- 25) patients and 120 age-matched sibling control participants for the quantitative portion of this study. Parents (or guardians) of pediatric patients will also be recruited to participate. After completing questionnaires quantitatively describing HRQOL, a subset (approximately 20%) of CHD patients and their parents will be interviewed for qualitative data relating to their experience with postoperative CHD. Ugandan staff members trained in qualitative research methods will conduct patient interviews (30 minutes per interview) with patients and caregiver dyads to collect narratives on the patient experience, with modified questions for parents and children, adolescents, young adults, and female participants of child-bearing age. The interview transcripts will be coded and analyzed using qualitative description research methods. Four members of the research team who did not conduct the interviews will independently analyze the transcripts with inductive coding methods in Dedoose. The team will cluster related codes into hierarchical frames and themes that will inform the interventions we suggest in order to improve HRQOL. Our mixed-methods approach provides the opportunity for mixing to occur at multiple stages during the study; qualitative and quantitative data will dynamically inform each other.

Progress to date: The study has been approved by Makerere University (Kampala, Uganda) IRB, a list of potential patients and families with contact information has been compiled and study staff will reach out to these patients and families in April to invite them to participate.

Conclusion: Study of HRQOL in a population with repaired CHD in Uganda will not only have direct benefits on Ugandan patients with CHD, but also is an opportunity to address a large gap in our understanding of long-term patient outcomes of CHD patients after heart surgery in a LMIC, particularly as children mature into adults and girls become of childbearing age.

ORAL P12 Abstract 33

Preliminary Experience with Surgical Delamination of the Fused Cuspal Apparatus of the Pulmonary Valve Aimed at Preserving the Valve and Annulus During Repair of Tetralogy of Fallot (TOF)

Anil Dharmapuram; Nagarajan Ramadoss; Gouthami Vejendla; Sudeep Verma; Nalluri Rhazane
Krishna Institute of Medical Sciences, Hyderabad, INDIA

Background: During repair of TOF we employed aggressive surgical delamination of the fused cuspal apparatus of the pulmonary valve as a surgical strategy to preserve the valve and annulus if the pulmonary valve leaflets are fairly pliable and not significantly dysplastic.

Methods: In our institutional experience with the valve and annulus sparing strategies during TOF repair, we recently employed aggressive surgical delamination of the fused cuspal apparatus of the pulmonary valve. This particular surgical strategy was done between September 2019 to December 2021 in 43 patients with TOF and borderline sized annulus associated with a pulmonary valve that is not significantly dysplastic and with fairly pliable valve cusps. The age ranged from 4 to 18 months (median 8 months). The weight ranged from 5 to 9.5 kg (median 6.8 kg). In this strategy using a number 15 sharp blade, the entire fused cuspal apparatus is carefully and aggressively shaved off from the pulmonary artery wall till the bases of the cusps in the right ventricular outflow tract (RVOT). After this, a controlled commissurotomy is performed using a number 11 sharp blade till the bases of the cusps; by doing so the commissure itself is removed from the pulmonary artery wall and a new zone of opposition is created in the RVOT between the cusps. With this strategy, we could extend the limit of the annulus sparing repair to a z-score of -3.5.

Results: There was no hospital mortality. The early follow up ranged from 1 to 28 months (median 15 months). All patients are doing well with well-preserved right ventricular function and without valve regurgitation. There was no significant RVOT gradient during this follow up. In 25 patients, the gradient has been mild (< 30 mm Hg), in 18 patients the gradient has been moderate (30 to 40 mm Hg).

Conclusions: Aggressive surgical delamination of the fused cuspal apparatus as a surgical strategy will extend the limit of annulus sparing in TOF repair. With this delamination, the volume and the mobility of the individual cusps of the pulmonary valve will improve. This will possibly play a major role in preventing recurrent obstruction after valve sparing repair in TOF. Our preliminary experience shows encouraging results. Even though the number is small and the follow up is early, we strongly feel that this concept of aggressive surgical delamination will help in preventing re-intervention in this subset of patients.

ORAL P13 Abstract 39

Impact of Major Aorto-Pulmonal Collaterals On Outcomes after Repair of Pulmonary Atresia and Ventricular Septal Defect

L. Wicklein 1; C Wolf 2; PP Heinisch 1; P. Ewert 2; J. Hörer 1,3; J. Cleuziou 1,3,4; M. von Stumm 1,3,4

1. Department of Congenital and Paediatric Heart Surgery, German Heart Center Munich, Technical University of Munich, School of Medicine , Munich, GERMANY;
2. Department of Cardiovascular Surgery, German Heart Center Munich, Technical University of Munich, School of Medicine, Munich, GERMANY;
3. Division of Congenital and Paediatric Heart Surgery, University Hospital of Munich,Ludwig-Maximilians-Universität, Munich, GERMANY;
4. Institute for Translational Cardiac Surgery (INSURE), German Heart Center Munich, Technical University of Munich, School of Medicine, Munich, GERMANY

Background: Patients with pulmonary atresia and ventricular septal defect (PA-VSD) have pulmonary blood supply from native pulmonary arteries, from major aorto-pulmonal collaterals (MAPCAs) or from both. The impact of MAPCAs on clinical outcomes is controversially discussed. Hence, we analyzed our surgical mid-term results in patients with PA-VSD and compared those with or without MACPAs.

Methods: All patients with PA-VSD who underwent biventricular repair with VSD closure at our institution from 1/2004 to 12/2020 were identified. Other variants of tetralogy of Fallot (i.e., TOF, DORV TOF, absent pulmonary valve syndrome) were excluded. Primary study endpoint was all-cause mortality. Secondary endpoint was the composite of catheter-based re-intervention and re-operation.

Results: A total of 68 patients were identified and divided into group M with MAPCAs (n =33; 48.5%) and group non-M without MAPCAs (n=35; 51.5%). Staged repair was performed in 29 (87.9%) patients in group M and 33 (94.3%) in group non-M (p=0.4). Staging procedures in group M consisted of aortopulmonary shunt in 14, unifocalisation in 8, transannular patch in 4 and pulmonary valvuloplasty in 4 patients. In group non-M, staging procedures included aortopulmonary shunt in 21, arterial duct stenting in 7, pulmonary valvulopasty in 3 and RV-PA conduit implantation in 2 patients. At time of repair, mean age was significantly higher in group M vs. group non-M (21±23 vs. 9±7 months; p = 0.001). RV-PA continuity was achieved with conduit implantation in 32 (97.0%) patients in group M and in 30 (85.7%) in group non-M (p=0.1). Survival was not significantly different between group M and group non-M: 97 ± 3% vs. 97 ± 3 % at five years, respectively. Over a median follow-up time of 6 years (range 0 – 15), re-operations were required for conduit exchange in 17 (25%), closure of residual VSD in 2 (2.9%), and implantation of pacemaker in 1 (1.5%) patient. Catheter-based re-interventions included angioplasty of pulmonary artery branches in 31 (45.6%) and transcatheter pulmonary valve replacement in 6 patients (8.8%). There were no differences in freedom of composite endpoint of re-intervention and re-operation between both groups (33.9 ± 8.9% for group M vs. 41.4 ± 9.5% for group non-M; p=0.91) at five years.

Conclusion: Survival of PA-VSD patients with and without MAPCA is excellent following biventricular repair at midterm. Despite the anatomical differences in pulmonary vasculature, there were no differences in rates of survival, re-operation and re-intervention between PA-VSD patients with or without MAPCAs.

ORAL P14 Abstract 96

Challenges in the Management of Pulmonary Atresia with Intact Ventricular Septum

Danielle Healey; Alyssia Venna; Priya Misra; Can Yerebakan; Murfad Peer; Pranava Sinha; Joshua Kanter; Craig Sable; Yves d'Udekem
Children's National Hospital, Washington, DC, USA

Background: With mortality reaching 22% by 9 years of life, pulmonary atresia with intact ventricular septum (PA IVS) remains one of the most severe single ventricle conditions of early childhood. We reviewed our center's experience of patients with PA IVS to identify best management strategies for these patients.

Methods: A total of 66 records of patients with PA IVS were reviewed. The distribution of initial right ventricle (RV) sizes was collected from echocardiographic reports and was characterized as follows: severely hypoplastic (45), normal (9), severely dilated (1), and not recorded (11). The median tricuspid valve (TV) Z-scores of patients with severe RV hypoplasia and normal RV size were -3.1 (Range: -0.7 to –5.9) and -2.1 (Range -0.1 to -6), respectively. As defined by catheterization report, coronary sinusoids were present in 31 patients (47%) and right ventricular dependent coronary circulation (RVDCC) in 20 patients (30%).

Results: Patients were divided into 5 end statuses: death (17), Fontan (20), biventricular repair (18), awaiting Fontan (6), and heart transplant (5). Six of the 17 deaths had RVDCC ($p = 0.6$) and 10 had sinusoids ($p = 0.3$). Only one patient achieved a biventricular repair with a Z-score of < -3. Four of the 6 patients who had radio frequency perforation of the pulmonary valve followed by a surgical shunt procedure died when the two procedures were performed within the same hospital stay. Three of the 12 patients who had TV insufficiency died at 0, 5, and 7 months. No patients had any procedure to address TV insufficiency. Four of the 6 patients who had a severely hypoplastic RV and underwent a primary interventional catheterization died.

Conclusion: Our data shows that infants born with PA IVS continue to have lower survival than those with other single ventricle conditions and new approaches are needed to change this. Addressing TV regurgitation early in life and avoiding the opening of the right ventricular outflow tract (RVOT) of patients with a TV Z-score inferior to -3 might decrease mortality. It is possible that some patients who need the creation of a systemic-pulmonary shunt would be better served by a gentle surgical opening of the RVOT at the time of the shunt procedure rather than a preceding catheter intervention.

ORAL P15 Abstract 59

Clinical Outcomes of Tetralogy of Fallot Repaired in Adulthood: Experience From LMIC

Maha Inam, Laila Ladak, Fatima Ali, Mahin Janjua, Mahim Malik
Aga Khan University, Karachi, PAKISTAN

Background: In LMIC, due to delays in treatment and diagnosis, patient often undergo complete repair of Tetralogy of Fallot beyond infancy, and even in adulthood. Our study aims to evaluate longitudinal outcomes and health related quality of life (HRQoL) in patients who underwent complete repair as adults.

Methods: Patients over the age of 16 who underwent complete repair were included. Pre-operative, operative and immediate postoperative variables were collected via retrospective chart review. A follow-up echocardiogram was performed prospectively to assess cardiac function and residual lesions. Using mixed methodology, quantitative assessment for HRQoL was done with Short-Form 36 (SF-36) questionnaire while for qualitative assessment detailed, in-depth, semi structured interview were conducted. Results were expressed as mean with standard deviation for continuous variables and as frequencies with percentage for categorical variables. The interview transcripts were analyzed to identify common themes.

Results: 56 patients were included, where 66.1% of patients were male with the mean age at surgery of 22.39 ± 6.00 years. The mean cross clamp time was 120.85 ± 39.20, mean cardiopulmonary bypass time was 161.66 ± 61.10 and the average length of hospital stay was 9.93 ± 6.61 days (4-34). All patients had a post-operative NYHA Classification of I or II, 94.6% had an ejection fraction of ≥50%. 32.1% of patients suffered post-operative morbidity. Quantitative assessment via SF-36 dimensions, patients showed good scores (mean 78.9). A major cause of delay to treatment was lack of consensus between treatments offered by doctors in different parts of Pakistan. There was a pattern of 'inability to fit in' among patients who had had late TOF repair, despite self- reported improved HRQOL.

Conclusion: While late diagnosis and eventual repair of TOF produces good clinical results, these patients face significant psychosocial issues. These patients require additional psychosocial counselling to help them re-integrate in society with their newfound strength. Need for long term follow-up should be emphasized as they may develop late complications.

ORAL P16 Abstract 106 Analysis of Early and Late Outcomes of TAPVC Repairs Done Over Last 10 Years: A Retrospective Observational Study

Murtaza M ; Devagourou V MCh
AIIMS New Delhi India; AIIMS New Delhi, INDIA

Aim: To assess the early and late outcomes of TAPVC repairs done over the last 10 years in AIIMS Hospital, New Delhi India.

Methods: Eighty-eight patients who were surgically treated for TAPVC at AIIMS Hospital over last 10 years from 1st June 2009 to 31st May 2019 formed the basis of this retrospective observational study. The study protocol was reviewed and approved by the Institutional Ethics Committee. The information regarding patient demographic details, pre-operative evaluation, surgical procedure, post-operative course and follow up after discharge was retrieved by searching O.T registries, medical record sections and finally by patient follow up in outpatient department/telephonic follow up.

Results: A total of eighty-eight (88) patients who underwent TAPVC repair were studied. Mean age and weight at surgery were 10.82 months and 5.27 kg respectively. Out of 88, 64 (72.7%) were male patients and 24 (27.3%) were females. 25% of the participants had Age ≤1 Month. The TAPVC anatomy was supra-cardiac in 41 (46.6%) cases, cardiac in 24 (27.3%), infra-cardiac in 14 (15.9%) and mixed in 9 (10.2%). Of the 88 TAPVC patients, 33 (37.5%) were obstructed at the time of operation. The association of obstruction with infra-cardiac TAPVC was found to be statistically significant (P=0.004). Twenty-nine (33%) patients had to be taken up for emergency TAPVC repair. Out of the 88 patients, 33 had preoperative Pulmonary Artery Hypertension (PAH). Thirteen (14.8%) patients were on mechanical ventilation preoperatively and 18 (20.5%) patients required preoperative inotropic support. The median total cardiopulmonary bypass time for all patients was 62 minutes, and median cross clamp duration was 32.5 minutes. Thus, vertical vein was left open in 34 cases (38.6%). Mean duration of mechanical ventilation was 4.18 days (+/-2.17 SD). Mean ICU stay was 8.01 days (+/-3.63 SD). Mean hospital stay was 17.8 days (+/-10.47 SD). Eleven (12.5%) patients died post-operatively. Out of these, 8 had age of less than 1 month (P<0.001). Also, the mean weight of the patients with early mortality is 3.85 kg (+/-2.17 SD), while the mean weight of the surviving patients is 5.48 kg (+/-3.35 SD), (P<0.05). All of the 11 mortalities had at least some PAH in the post-operative period. However, 16 out of the surviving 77 patients had PAH (P<0.001). There were 3 late deaths, 2 of which occurred in infra-cardiac TAPVC patients, while the third was of mixed TAPVC type.

Conclusions: The TAPVC anatomy was supra-cardiac in 41 (46.6%) cases, cardiac in 24 (27.3%), infra-cardiac in 14 (15.9%) and mixed in 9 (10.2%). Early mortality was 12.5%, while late mortality was 3.9%. Age less than 1-month, low weight at the time of surgery, preoperative obstructed pulmonary veins, preoperative need of mechanical ventilation, preoperative inotrope requirement, repair of TAPVC on an emergency basis and post-operative PAH were statistically significant risk factors for early mortality. Although early mortality was highest in patients with infra-cardiac type of total anomalous pulmonary venous connection, the correlation of TAPVC type with mortality was not found to be statistically significant. Gender, TAPVC type, pre-operative ventricular function, pre-operative PAH, associated cardiac lesions, CPB time, aortic cross clamp time, early post-operative complications, duration of ICU stay, duration of hospital stay and post-operative ventricular function have not been found to have any statistically significant association with early mortality in our study.

ORAL P17 Abstract 40 Outcomes of Transannular Repair of Tetralogy of Fallot with Contegra Monocuspid Patch: A Single-Center Experience

Aleksandra Wasiak; Radoslaw Jaworski; Mariusz Birbach; Michal Kozlowski; Malgorzata Mirkowicz-Malek; Joanna Friedman-Gruszczynska; Bohdan Maruszewski, Andrzej Kansy
Department of Cardiothoracic Surgery, Children's Memorial Health Institute, Warsaw, POLAND

Introduction: The surgical repair of Tetralogy of Fallot (ToF) depends on anatomical variations of the heart defect. The group of patients with hypoplastic pulmonary valve annulus need transannular patch. Based on ECHSA Congenital Database it concerns 55,7% of children undergoing ToF repair. The aim of this study was to evaluate early and late outcomes of ToF repair with transannular Contegra® monocusp patch in the single-center.

Methods: A retrospective medical record review was conducted which included 224 children who underwent ToF repair with Contegra® transannular patch between April 2001 and December 2021. Primary outcomes were hospital mortality and need for early reoperations. The secondary outcomes were late death and event free survival.
Median age was 13 months (QR 13,7), median weight was 9kg (QR 3), 58 of patients (26%) had previous Blalock-Taussig shunt, 3 children (1,3%) had previous valve-sparing ToF repair. Conduit sizes were 12mm in 156 patients (70%), 14mm in 63 patients (28%), 16mm in 5 patients (2%).

Results: Hospital mortality was 3,1% (7 patients, including 4 with ToF and AVSD), 2 patients required early reoperation (graft replacement 5 and 11 days after primary surgery), 3 patients were excluded from the study due to no follow-up after surgery.
In the remaining group of patients (consisting of 212 patients) the median follow-up was 116 months (range 1-206 months, QR 103,5). One patient died because of a sudden cardiac arrest at home 6 months after the operation. Event free survival was 85,4% (181 from 212 patients). 14,1% (30 patients) required graft replacement, with median time to reoperation of 99 months (range 4-183 months, QR 62,1).

Conclusions: Contegra® monocuspid patch can be effectively used in transannular repair of ToF with good long-term results.

VIDEO ABSTRACT PRESENTATION

Video 1 Abstract 34 Bicuspid Repair of Tetralogy of Fallot: How We Do It

Dekel Hagi, Sasson Lior
Wolfson Medical Center, Holon, ISRAEL

Introduction: The surgical management of right ventricular outflow tract (RVOT) obstruction in patients with TOF remains controversial. The selection of the surgical technique can influence both the short-term function and the long-term fate of the right ventricle. Trans annular patch repair remains favored by many surgeons (TAP) but have respective short- and long-term disadvantages. This approach results in pulmonary insufficiency with volume-loading of the right ventricle (the pressure-loaded, hypertrophied right ventricle undergoes reverse remodeling to a volume-loaded dilated ventricle) and the need for early re operative, pulmonary valve placement. Other surgeons try to reconstruct the RVOT with a valve when valve-sparing techniques cannot be done. We also started with the monocusp repair but soon after changed our strategy and develop a Bicusp PTFE patch technique or creating a hybrid valve (made from the native leaflets and a monocusp PTFE leaflet). We have found that the new technique can create a competent and nonstenotic pathway, leading to protective physiologic conditions for the right ventricle. We believe that a bicusp PTFE valve or hybrid valve is favorable to a regular monocusp by preventing short-term and midterm pulmonary insufficiency without evidence of stenosis. This article reviews technical considerations in the construction of PTFE Bi-cusp/hybrid valve.

Material and Methods: At the Wolfson Medical Center in Israel, the pediatric division is affiliated with Save a Child's Heart foundation which bring children from developing countries around the world to Israel for surgery. As so we operate on children with TOF in all group ages (up to few years). Between 2017 and 2021, 204 patients were referred for total TOF repair of which 82 underwent pulmonary valve reconstruction (were not candidate for valve-sparing). After mid-sternotomy and regular connection to cardiopulmonary bypass and aortic cross clamp, the VSD was closed and muscle resection was done in the RVOT as needed, a vertical incision was done in the main pulmonary artery and the pulmonary valve and annulus are inspected. If needed the pulmonary artery incision is extended through the annulus (trying to preserve the native pulmonary leaflets) to the RVOT (The ventriculotomy is oriented to avoid significant right ventricular coronary Branches) and is carried as sort as possible to relieve RVOT obstruction. All effort is done to preserve the leaflets to become two posterior leaflets. Another PTFE 0.1m"m patch is implanted on the ventriculotomy to function as anterior pulmonary valve leaflet among to create a good cooptation with the native leaflets. If the native leaflets cannot be preserved, we construct a posterior leaflet with a small PTFE 0.1 m"m patch leaflet with anterior a big PTFE 0.1 m"m patch. The main pulmonary artery is augmented with PTFE 0.4m"m patch.

Conclusion: Historically, the literature has been inconclusive regarding the perioperative function and clinical benefit of monocusp RVOT reconstruction. In our hands, construction of the bicusp PTFE valve has proven to be a simple and reproducible technique demonstrating excellent early postoperative function with minimal pulmonary insufficiency. In a nonpublished review of our clinical outcomes with tetrology of Fallot, we found patients with bicusp valve had a perioperative clinical course similar to those children undergoing pulmonary valve-sparing procedures. We favor the use of the bicusp valve in a variety of RVOT pathologic conditions.

Video 2 Abstract 36 Tetralogy of Fallot Repair After Prior RVOT Stenting

Perry S. Choi, MD ; James Lee, BA; Mike R. Ma, MD
Stanford University, Lucile Packard Children's Hospital, Department of Cardiothoracic Surgery, Palo Alto, CA 94304

Stenting of the right ventricular outflow tract (RVOT) is a well-established palliation strategy in Tetralogy of Fallot patients with high-risk comorbidities. It can be an effective method of improving arterial oxygen saturation levels and pulmonary flows, and has been associated with increased levels of pulmonary arterial growth, shorter hospital length of stay, and lower PICU admission rates [1, 2, 3]. Despite these benefits, stenting of the RVOT poses potential complications and adds complexity to subsequent surgical repairs due to fibrous ingrowth around the stent leading to incomplete stent removal and local tissue reaction [1, 3]. In this report, we describe a 3kg 4-month-old infant with traversal of the RVOT stent towards the left main coronary artery and aortic root presenting for staged repair. The implementation of a triangular baffle to minimize risk to the coronary artery on future conduit changes is described.

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Video 3 Abstract 72

Surgical Management of Tetralogy of Fallot With Absent Pulmonary Valve

Alexey Zubritskiy, Yuriy Kulyabin, Nataliya Nichay
E.Meshalkin National Medical Research center, Novosibirsk, RUSSIA

Background: Pulmonary artery dilatation with airway compression may be a serious issue in patients with TOF/APV, causing significant mortality and morbidity. Here we present a case of TOF/APV with anomalous origin of the left pulmonary artery from the aorta repair.

Methods: Two months old girl with TOF/APV with anomalous origin of the LPA from the aorta with tracheobronchial compression by the dilated RPA and respiratory symptoms underwent elective corrective surgery, which is presented on the video. Reduction of the RPA with reimplantation of the LPA into the RPA was performed, followed by TOF repair with RV-PA conduit implantation.

Results: No complications occurred during intra- and postoperative period. She was extubated uneventfully. No signs of airway compression or bronchomalacia observed. Patient did not require additional reinterventions due to airway compression.

Conclusions: TOF/APV repair using pulmonary artery reduction technique is feasible procedure which may avert postoperative airway complications.

POSTER ABSTRACT PRESENTATION

POSTER 1 Abstract 18

Factors Affecting Outcome of Mitral Valve Surgery on Rheumatic Patients with Severe Pulmonary Hypertension

Farahnaz Ynawat-Abdulmajid; Gisel Catalan
Philippine Heart Center, Quezon City, Philippines

POSTER 2 Abstract 24

Tetralogy of Fallot with an Anomalous Origin of Right Coronary Artery from Pulmonary Artery in a Case of Type; Aortopulmonary Window: A Diagnostic Challenge

Dr Shivang Saxena;Dr Ashish Katewa
UNMICRC, Ahmedabad, India

POSTER 3 Abstract 25

Clinical Outcome of Mitral Valve Repair in Rheumatic Valvular Heart Disease Patients in Khartoum State 2021

Nuha Hamid; Mohammed Awad Elkarim; Sahar Elfadil; Sudan Heart center, Khartoum, Sudan

POSTER 4 Abstract 28

Two-Stage Hybrid Procedure for Treating Protein Losing Enteropathy after Fontan Operation

Vibeke Hjortdal; Jakob Gjedsted; Susanne Frevert; Niels Vejlstrup; Michael Rahbek; Yoav Dori; Morten Helvin
Departement of Cardiothoracic Surgery, Rigshospitalet, Copenhagen University Hospital, Denmark; Jill and Mark Fishman Center for Lymphatic Disorders and Lymphatic Research, Children's Hospital of Philadelphia, USA

POSTER 5 Abstract 29

Results of the Rheumatic Valve Repair in Children in Senegal

Papa Salmane Ba, Momar Sakhna Diop, Papa Amath Diagne, Amadou Gabriel Ciss
Thoracic and Cardiovascular Surgery Fann Hospital Center, Cheikh Anta Diop University, Dakar, Senegal

POSTER 6 Abstract 30

Results of Two-Years' Experience in Pediatric and Congenital Cardiac Surgery in Senegal

PAPA SALMANE BA, Momar Sokhna Diop, Papa Amath Diagne, Amadou Gabriel Ciss
Thoracic and Cardiovascular Surgery Fann Hospital Center, Cheikh Anta Diop University, Dakar, Senegal

POSTER 7 Abstract 31

Brain MRI Abnormalities in Young Adults with Simple Congenital Heart Defects and ADHD Symptoms

Sara Hirani Lau-Jensen; Benjamin Asschenfeldt; Simon Fristed Eskildsen; Vibeke Hjortdal
Department of Cardiothoracic Surgery, Rigshospitalet, University hospital of Copenhagen; Department of Clinical medicine, Aarhus University; Center of Functionally Integrative Neuroscience, Aarhus Univerity, Copenhagen, Denmark

POSTER 8 Abstract 32

Early Experience with Reconstruction of the Right Ventricular Outflow Tract (RVOT) Using 0.1 Mm Polytetraflouroethylene (Ptfe) Membrane During Repair of Tetralogy of Fallot (TOF)/Atresia/Absent Pulmonary Valve Group

Anil Dharmapuram; Nagarajan Ramadoss; Gouthami Vejendla; Sudeep Verma; Nalluri Rhazane
Krishna Institute of Medical Sciences, Hyderabad, India.

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Pleural and Mediastinal Effusions after Extracardiac Total Cavopulmonary Connection: Risk Factors and their Impact on Outcome

Paul Metz; Paul Philipp Heinisch; Takashi Kido; Benedikt Mayr; Janez Vodiskar; Martina Strbad; Julie Cleuziou; Bettina Ruf; Peter Ewert; Alfred Hager; Jürgen Hörer; Masamichi Ono
Department of congenital and pediatric heart surgery, German Heart Center Munich, Technische Universität München, Munich Germany;
Department of cardiovascular surgery, German Heart Center Munich, Technische Universität München, Munich Germany;
Department of pediatric cardiology and congenital heart disease, German Heart Center Munich at the Technical University of Munich, Munich, Germany

POSTER 10 Abstract 38

Familial Atrial Septal Defect And The Associated increased Risk of Arrhythmias and Heart Failure

Anne Kathrine Møller Nielsen; Sabrina Gade Ellesøe; Lars Allan Larsen; Vibeke Hjortdal; Camilla Nyboe
Department of Cardiothoracic Surgery, Rigshospitalet, Denmark; Department of Cellular and Molecular Medicine, University of Copenhagen, Denmark; Department of Anaesthesia and Intensive Care Medicine, Cardiothoracic Anaesthesia, Aarhus University Hospital, Denmark

POSTER 11 Abstract 41

Dynamic Contrast Magnetic Resonance Lymphangiography and Selective Lymphatic Embolization in a Patient with Plastic Bronchitis

Lene Thorup[1] ; Jørn Carlsen[2] ; Jakob Gjedsted[3] ; Yoav Dori[4] ; Vibeke Hjortdal[1]
1. Department of Cardiothoracic Surgery, Copenhagen University Hospital, Denmark ;
2. Department of Cardiology, Copenhagen University Hospital, Rigshospitalet, Department of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark ;
3. Department of Anesthesiology, Copenhagen University Hospital, Denmark ;
4. Jill and Mark Fishman Center for Lymphatic Disorders, Children's Hospital of Philadelphia, USA

POSTER 12 Abstract 42

Staged Surgical Repair for Patients with Tetralogy of Fallot and Extremely Low Weight

Voitov A; Rzaeva K; Arkhipov A; Soynov I; Kulyabin Y; Nichay N; , Bogochev-Prokophiev A
E. Meshalkin National Medical Research Center, Ministry of Health Russian Federation, Novosibirsk, Russia

POSTER 13 Abstract 43

Aortic Valve Operation after Tetralogy of Fallot Repair: Early and Late Outcomes

Theodor Tirilomis; Marius Grossmann; G. Gunnar Hanekop; Wolfgang Ruschewski
Dept. for Cardiac, Thoracic, and Vascular Surgery; Anesthesiology Dept.
University Medical Center Gottingen, Germany

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Presentation and Outcome of Kawasaki Disease: 14 Years Single-Center Experience

Naser Kolko, MDa; Ali Alakhfash, MDb; Abdurahman Almesned, MDc; Abdullah Alqwaiee, MDd; Marwan Alhobani, MDe; Ibrahim Alanzif, MBBS; Prince Sultan Cardiac Center Elqassim, Buraydah, Saudi Arabia

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Long-Term Outcomes of Arterial Switch Operation for Transposition of Great Arteries

Sana Said, Kaouthar Hakim, Rihab Ben Othmen, Hela Msaad, Fatma Ouarda
Pediatric Cardiology Department, La Rabta Hospital of Tunis, Tunis, Tunisia

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Long-Term Outcome after Correction of Tetralogy of Fallot: A Single-Center Experience

Rihab Ben Othman; Kaouthar Hakim; Sana Said; Hela Msaad; Fatma Ouarda.
Pediatric Cardiology Department, La Rabta Universitary Hospital Of Tunis, Tunis El Manar University, Tunisia

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Carditis Due to Rheumatic Fever and Its Difficulty in Aortic and Mitral Valve Replacement

Carlós Alcántara Noguez; Alejandro Bolio Cerdán; Dr. Sergio Ruiz González; Dra. Patricia Romero; Moisés González Cárcamo; Nubia Ruiz; Luis Emmanuel Ruiz Pérez.
Children's Hospital of Mexico, Mexico City, Mexico

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Socioeconomic Status Not Solely Predictive of Morbidity and Mortality in Low- and Middle-income Countries in Congenital Heart Surgery

Clauden Louis MD MS, Renzo Cifuentes MD, Janine Henson RN, BSN, CCRN, Bill Zeman MD, Barbara Ferdman MD FAAP, Aubyn Marath MD University of Rochester Medical Center; University of Miami, Rochester, USA

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Valve Sparing Repair of Tetralogy of Fallot: A Comparative Study From LMIC

Areesh Bhatti, Usama Waqar, Shiraz Hashmi, Faiqa Binte Amir, Mahin Janjua, Mahim A Malik
Aga Khan University, Karachi, Pakistan

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Open-heart surgery at the General Reference Hospital of Niamey: Preliminary Study about 15 Operated Cases

Amadou Daouda ; Drissi Boumzebra ; Sani Rachid
General Referral Hospital Niamey; Mohammed VI University Hospital Marrakech, Morocco; National Hospital Niamey, Niger

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The Glenn Superior Cavo-Pulmonary Shunt: Is It a Safe Procedure in Patients Aged More Than 6 Months?

Son M; Benbakh S; Kane D; El Mardouli M; Dicko A; Boumzebra D
Cardiovascular surgery department, Mohammed VI University Hospital, Marrakech, Morocco

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Discrete Subaortic Stenosis Resection: Mid-Term Results

Benbakh S; Thiombiano A; El Mardouli M; Kane D; Abdoulkarim Z; Boumzebra D
Cardiovascular surgery department, Mohammed VI University Hospital, Marrakech, Morocco

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The Modified Blalock – Taussig Shunt: A Ten-Year Experience

Son Moussa ; Benbakh Soukaina ; Zalle Issaka ; Boumzebra Drissi
Cardiovascular surgery department, Mohammed VI University Hospital, Marrakech, Morocco

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Isolated Pulmonary Valve Endocarditis: The Use of Homograft When Conservative Strategy Is Not Possible: A Case Report

El-Alaoui Mohamed, Boumzebra Yasmina, Belhaj Karim, El Mardouli Mouhcine, Zalle Issaka, Thiombiano Abdoulaziz, Boumzebra Drissi, Cardiovascular Surgery Departement, Mohammed VI University Hospital, Marrakech, Morocco

POSTER 25 Abstract 71

Short and Long-Term Outcomes of Children with Rheumatic Heart Disease in Sudan: Severe Disease and Limited Access to Surgery

Noha Karadawi; Sulafa Ali; Khlood Mohamed Mustafa; Nazar B. El Hassan Sudan Heart Center – Khartoum, Sudan

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Second Time Pulmonary Valve Replacement in Total Repaired Tetralogy of Fallot: A Case Report.

Hafil B. Abdulgani
Pertamina Central Hospital, Jakarta, Indonesia

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Epoxy-Treated Bovine Vein Conduit in Pig Model: Preliminary Study

Nataliya Nichay; Irina Zhuravleva; Yuriy Kulyabin; Alexey Zubritskiy; Maksim Zhulkov; Ilya Zykov; Eugene Boyarkin; Oxana Malakhova; Elena Kuznetsova; Yanina Rusakova; Ivan Murashov; Alexander Bogachev-Prokophiev
E. Meshalkin National Medical Research Center, Moscow, Russia

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Trans-Left Atrial Myectomy for Hypertrophic Obstructive Cardiomyopathy and Anomalous Papillary Muscle in Patient with Small Aortic Annulus: A Case Report

Hafil B. Abdulgani
Medika BSD Hospital, Tangerang, Indonesia

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Coronary Revascularization in Patients with Cardiac Sequelae of Kawasaki Disease at a Single Center

Edgar S. Ramírez-Marroquín, Diego B. Ortega-Zhindón, Iris P. Flores-Sarria, Juan Calderón-Colmenero, José A. García-Montes, Jorge L. Cervantes-Salazar
National Institute of Cardiology Ignacio Chávez, Mexico City, México.

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Surgery for Ascending Aortic Aneurysms in Children: Surgical Outcome in a National Referral Center

Jorge L. Cervantes-Salazar; Juan Calderón-Colmenero; Jose A. García-Montes; Frida Rivera-Buendía; Diego B. Ortega-Zhindón.
National Institute of Cardiology Ignacio Chávez. Mexico City, México.

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Short and Long-Term Outcomes of Children with Rheumatic Heart Disease in Sudan: Severe Disease and Limited Access to Surgery

Elmudathir Abdelrahman ; Abigail Soul ; Khaleel Ur-Rahman
Calderdale Royal hospital , United kingdom

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Surgical Outcome of Aortic Valve Replacement in Pediatric Patients: 17-Year Experience in a National Referral Center.

Jorge L. Cervantes-Salazar; Juan Calderón-Colmenero; José A. García-Montes; Frida Rivera-Buendía; Diego B. Ortega-Zhindón.
National Institute of Cardiology Ignacio Chávez. Mexico City, México.

POSTER 33 Abstract 84

Heart Valve Surgery in Children with Rheumatic Heart Disease: Challenging Features in Developing Country

Hafil Budianto Abdulgani*; Anna Ulfah Rahajoe**
*Department Of Cardiothoracic Surgery, Universitas Yarsi Hospital; ** Department of Cardiology, Universitas Indonesia, National Cardiac Centre. Jakarta, Indonesia.

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Health Related Quality of Life (Hrqol) Following Fontan Operation in a Middle-Income Country

Muhammad Ajmal; Putri Yubbu; Leong Ming Chern
University Putra Malaysia; National Health Institute, Kuala Lumpur, Malaysia

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Initial Experience with Paediatric Congenital Cardiac Surgery in Nigeria

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Cardiothoracic surgery unit, Department of Surgery, Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria;

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Heart Valve Surgery in Children with Rheumatic Heart Disease: Challenging Features in Developing Country.

Hafil Budianto Abdulgani*; Anna Ulfah Rahajoe**
* Department of Cardiothoracic Surgery, Universitas YARSI Hospital;
* Department of Cardiology, Universitas Indonesia, National Cardiac Centre. Jakarta, Indonesia.

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Outcomes of Mechanical Mitral Valve Replacement in Children: A Single Centre 10-Year Results

Ahmed Abousteit 1; Garima, Bhag 1; Avishek Sammadar 1; Ramesh Kutty1; Rafael Guerrero 1; Ram Dhannapuneni 1; Attilio A Lotto 1-2
1. Department of Paediatric Cardiac Surgery, Alder Hey Children's Hospital, Liverpool, United Kingdom;
2. Faculty of Health, Liverpool John Moores University, Liverpool, United Kingdom

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Micromechanical Properties of Animal and Synthetically Derived Materials Used in Congenital Cardiac Surgery Repairs

Attilio Lotto 1-3; Isobelle Harrison 2; Celine Chikuhwa 2; Riaz Akhtar 2-3
1. Department of Pediatric Cardiac Surgery, Alder Hey Children's Hospital, Liverpool, United Kingdom;
2. Department of Mechanical, Materials, and Aerospace Engineering, School of Engineering; 3 Liverpool Centre for Cardiovascular Science, Liverpool, United Kingdom

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Prevalence and Distribution of Adults Congenital Heart Disease Patient Population in Colombia.

Carlos-Eduardo, Guerrero-Chalela; Oscar, Perez; Paola, Cruz; Catalina, Vargas-Acevedo Karen Moreno-Medina; Natalia, Rodriguez; Alberto, Garcia; Miguel, Ronderos-Dumit; Nestor, Sandoval
Fundacion Cardioinfantil-LaCardio, Bogota, Colombia

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Perception of Health in Congenital Heart Disease Patients Differ By Age Group in Children and Adolescents

Jessica Y. Choi1,2; Renzo CiFuentes2; Barbara Ferdman2; Vinicius Nina2; Rachel Vilela de Abreu Haickel2; John Connett3; Aubyn Marath2,3
1 Center for Human Systems Immunology, Duke School of Medicine;
2 CardioStart International; 3University of Minnesota, USA

POSTER 41 Abstract 100

Direct Vein Anastomosis or Graft Interposition for Primary or Reoperation in Scimitar Repair

Nestor Sandoval; Thomas Chalela; Ivonne Pineda; Albert Guerrero; Estela Hidalgo; Andrea Torres; Carlos Obando.
Fundaciòn Cardioinfantil -La Cardio, Bogota, Colombia

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Patient-Based Surgical Approach for Pulmonary Atresia with Ventricular Septal Defect with or without Major Aorto-Pulmonary Collaterals

Néstor Sandoval, Ivonne Pineda, Pablo Sandoval, Alberto García, Julián Forero, Albert Guerrero, Carlos Obando, Jaime Camacho, Carlos Villa, Juan Pablo Umaña, Tomas Chalela.
Fundaciòn Cardioinfantil - La Cardio, Bogota, Colombia

POSTER 43 Abstract 104

Surgery for Tetralogy of Fallot at the André Festoc Center in Bamako (Mali)

Modibo Doumbia1*, Baba Ibrahima Diarra1, Bréhima Coulibaly1,3 Sanoussy Daffe, Mahamadoun Coulibaly1, Asmao Keita, Binta Diallo1, Salia Traore1, Siriman Koita1, Birama Togola3, S Togo, Mamadou B Diarra1,3 Sadio Yena3
Hopital Mere -Enfant Le Luxembourg De Bamako, Mali

POSTER 44 Abstract 105

Summary of Cardiac Surgery Activities at the André Festoc Cardio-Pediatric Center in Bamako (Mali)

Modibo Doumbia1*, Baba Ibrahima Diarra1, Bréhima Coulibaly1,3 Sanoussy Daffe, Mahamadoun Coulibaly1, Asmao Keita, Binta Diallo1, Salia Traore1, Siriman Koita1, Birama Togola3, S Togo, Mamadou B Diarra1,3 Sadio Yena3
Hopital Mere -Enfant Le Luxembourg De Bamako, Mali

POSTER 45 Abstract 107

Comparison of Early Outcomes of Mechanical Versus Bio Prosthetic Valve in Pulmonary Position in TOF and Corrected TOF

Pateek Vaswani MCh ;Devagourou V
AIIMS, New Delhi, India

POSTER 46 Abstract 109

Idiopathic Bilateral Atrial Dilatation: An Entity Not to be Ignored

M.Boutgourine; S. El Karimi; I. Rhoujjati; M. Elhattaoui
Cardiology Department Mohammed Vi University Hospital Center Marrakech Morocco

POSTER 47 Abstract 110

A Complex Cardiovascular Anomalies Associated with DiGeorge syndrome: Case Report

Yousef Eshaq, Saloua El Karimi, Halima Eljazouli, Mustapha Elhattaoui
Cardiology Department, Mohamed Vi University Hospital Center Marrakech Morocco

POSTER 48 Abstract 111

Angio-CT Scan in Congenital Heart Disease: In Pediatric Population

Btissam Zouita
Cardiology Department, Mohamed VI University Hospital Center Marrakech Morocco

POSTER 49 Abstract 112

An Unfortunate Association: Bone Abscess Revealing a Complicated Right and Left Sided Infective Endocarditis in a Child

J.Elmasrioui ;S.Elkarimi ;Z.Wakrim ;M.Elhattaoui
Cardiology Department Mohammed VI University Hospital Center, Marrakech, Morocco

POSTER 50 Abstract 113

Open Heart Surgery at The General Reference Hospital of Niamey: Preliminary Study about 15 Operated Cases

Amadou Daouda, Boumzebra Idrissi
Cardiovascular surgery department of the general reference hospital of Niamey/Niger; Cardiovascular surgery department of teaching hospital of Marrakech/Morocco

POSTER 51 Abstract 114

A Subvavular Stenosis Giving the Aspect of a Hypertrophic Cardiomyopathy

I.Hazzazi , S.Elkarimi , Y.Islah , M. Elhattaoui
Cardiology department, Mohamed Vi University Hospital Center Marrakech Morocco

POSTER 52 Abstract 115

Prevalence, Pattern and Outcome of Children with Tetralogy of Fallot: A 10-year Review at a Tertiary Health Facility in Nigeria

Waziri UM1, Sani UM1, Isezuo KO1, Abubakar U2, Ukwuani SI2, Mounsurat FA1, Abdullahi I2
1. Cardio-Pulmonary Unit, Department of Paediatrics, Usmanu Danfodiyo University Teaching Hospital Sokoto, Nigeria;
2. Cardio-Thoracic Unit, Department of Surgery, Usmanu Danfodiyo University Teaching Hospital Sokoto, Nigeria

POSTER 53 Abstract 116

Pulmonary Valve Replacement after Heart Procedures and Surgeries

Seddik Mohamed; Héla Ben Jmaa ; Samar Mejri ; Ayman Damak; Majdi Gueldich; Imed Frikha
Cardiovascular surgery department; Sfax, Tunisia

POSTER 54 Abstract 117

Anomalous Origin of Coronary Artery: About 4 Cases

Seddik Mohamed; Héla Ben Jmaa; Samar Mejri; Ayman Damak; Majdi Gueldich; Imed Frikha Cardiovascular surgery department, Sfax, Tunisia

POSTER 55 Abstract 118

Optimize the Modeling of the Heart Prototype for Surgical Simulation

Aya Abiya(1), Fatima Bouyahia(1), Mouhcine El Mardouli(2),El Alaoui Mohamed(2), Drissi Bboumzebra(2)
1. Laboratoire D'ingénierie Et Sciences Appliquées Lisa, Cadi Ayad University-Marrakesh, Morocco
2. Laboratoire Biosciences Et Santé, Cadi Ayad University-Marrakesh, Morocco

THE WORLD SOCIETY FOR PEDIATRIC AND CONGENITAL HEART SURGERY WOULD LIKE TO EXPRESS ITS GRATITUDE FOR THE GENEROUS PAST AND ONGOING SUPPORT FROM THE FOLLOWING:

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- Angela's Big Heart for Little Kids Fund
- Division of Cardiovascular Surgery Fund
- Drs. Ivan & Milka Tchervenkov Endowment Fund
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1. LETTER OF INTENT FROM LOCAL MEMBER

2. SUMMARY OF ADVANTAGES & POTENTIAL PROBLEMS

3. ENDORSEMENTS
a. CITY, REGION, COUNTRY
b. ORGANIZATIONS: LOCAL, REGIONAL, NATIONAL, INTERNATIONAL

4. YOUR HOST CITY & COUNTRY & VISA REQUIREMENTS

5. VENUE, FACILITIES & SET-UP
a. CONFERENCE HALL & AREA FOR POSTERS
b. GOVERNING COUNCIL, EDITORIAL BOARD & COMMITTEE MEETINGS
c. EXHIBITORS

6. ACCOMMODATION
a. HEADQUARTERS HOTEL
b. OTHER HOTELS – RANGE OF COSTS

7. SCIENTIFIC MEETING
a. POSTGRADUATE COURSE: POSSIBLE TOPICS OF INTERREST
b. NAMED LECTURES – STELLA VAN PRAAGH, CASTANEDA & JATENE
c. DATES
d. CME CERTIFICATION - CAT 1 CREDITS

8. SOCIAL PROGRAM
a. OPENING CEREMONIES & WELCOME RECEPTION
b. GALA DINNER
c. PRESIDENTIAL RECEPTION (LEADERSHIP, HOSTS & FACULTY ONLY)

9. FINANCES
a. BUSINESS PLAN
b. REGISTRATION FEES
c. FUNDRAISING
d. COMMITTED FINANCIAL SUPPORT

10. PRE AND POST TOURS

11. PRESENTATION SLIDES & VIDEO

Send bids to: Christo I. Tchervenkov, MD
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e-mail: execdirector@wspchs.org

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CERTIFICATION OF BY-LAWS OF WORLD SOCIETY FOR PEDIATRIC AND CONGENITAL HEART SURGERY (THE "WORLD SOCIETY")

The undersigned do hereby confirm that the attached by-law, namely By-Law No. 2014 1, being the General By-Laws of the World Society, ratified by the members at the Annual Members Meeting on July 19, 2014, in Sao Paulo, Brazil, are the by-laws of the Corporation and are in full force and effect.

Dr. Christo I. Tchervenkov
Director, Executive Director and Founding President

Dr. Hiromi Kurosawa
Director and President

Dr. Giovanni Stellin
Director and Immediate Past President

Dr. Richard Jonas
Director and First Vice-President

Dr. Marcelo Jatene
Director and Second Vice-President

BY-LAW NO.1 2014-1 GENERAL BY-LAWS OF WORLD SOCIETY FOR PEDIATRIC AND CONGENITAL HEART SURGERY

ARTICLE 1: NAME

The name of this organization is the World Society for Pediatric and Congenital Heart Surgery hereafter abbreviated as the World Society.

ARTICLE 2: LANGUAGE

Insofar as the members of the World Society reside all over the world, it is incumbent to recognize a working language for the World Society, and therefore the official language of the World Society shall be English.

ARTICLE 3: VISION, MISSION & OBJECTIVES

The Vision of the World Society is that every child born anywhere in the world with a congenital heart defect should have access to appropriate medical and surgical care.

The Mission of the World Society is to promote the highest quality comprehensive cardiac care to all patients with pediatric and/or congenital heart disease, from the fetus to the adult, regardless of the patient's economic means, with an emphasis on excellence in education, research and community service.

The Vision and Mission of the World Society will be pursued by working towards the following objectives:

A. Patient Care

1) To improve the quality and practice of pediatric and congenital heart surgery as a specialty across the world, with particular emphasis on areas of need through education and exchange of information;

B. Education

2) To promote the professional and educational development of surgeons specializing and practicing pediatric and congenital heart surgery across the world;

3) To promote the dissemination of informational support to patients, parents of patients, families of patients, and health care professionals, working in collaboration with The International Society for Nomenclature of Paediatric and Congenital Heart Disease (ISNPCHD) (www.ipccc.net);

4) To develop global standards for the training and education of pediatric and congenital heart surgeons;

5) To develop global standards for the practice of pediatric and congenital heart surgery across the world;

6) To provide a forum for the respectful exchange of knowledge in the form of scientific meetings and publications across the world;

C. Research

7) To encourage basic and clinical research in pediatric and congenital heart surgery across the world with emphasis on long-term and regional outcomes;

8) To organize and maintain a global database on operations and outcomes built upon extant continental databases;

D. Community Service

9) To promote the development of the World Society for Pediatric and Congenital Heart Surgery, working in collaboration with pediatric and congenital cardiologists, anesthesiologists, intensivists, nurses, and all other interested physicians and allied health care professionals;

10) To promote collaboration across medical and surgical subspecialties;

11) To maintain an accurate database of pediatric and congenital heart surgeons and programs across the world and facilitate mentorship between surgeons and centers;

12) To facilitate fundraising across the world for pediatric and congenital heart surgery in order to achieve its goals, particularly in areas of need;

13) To sensitize governments and public organizations of the necessity to support and adequately fund pediatric and congenital heart surgery programs across the world;

14) To interact and cooperate with existing continental organizations in the pursuit of its mission and its objectives;
15) To provide professional advice to global organizations regarding issues pertaining to pediatric and congenital heart surgery.

The purposes of the World Society are: (a) to promote the provision of appropriate medical and surgical care for patients with one or both of pediatric or congenital heart disease, including through the promotion of professional development of surgeons practicing pediatric and congenital heart surgery, and the exchange of information among health care professionals in this field; and (b) to receive funds and to use and maintain same for the carrying out of such objects.

ARTICLE 4: INCORPORATION & HEAD OFFICE

The World Society has been incorporated and continued as a corporation in Canada, and maintains a registered office (head office) in Montreal, Québec, Canada. The World Society may have additional offices elsewhere in Canada or outside Canada from time to time as determined by its Board of Directors.

ARTICLE 5: MEMBERSHIP

Although the World Society is founded by pediatric and congenital heart surgeons, it will be open for membership to all cardiac surgeons, physicians, and allied health care professionals from anywhere in the world who practice and/or have an interest is in the field of Pediatric and Congenital Heart Surgery and related specialties dealing with congenital and/or pediatric heart malformations. Residents and fellows in cardiac surgery and/or pediatric and congenital heart surgery may become Junior Members. The membership shall be unlimited.

SECTION 1 TYPES OF MEMBERSHIP

There will be 5 classes of membership: active, senior, honorary, associate and junior. Furthermore, anyone who became a member prior to or at the Inaugural Meeting of the World Society in 2007 (at which time the World Society was an unincorporated association) and pays their founding dues will be acknowledged as a Founding Member of the World Society (although this shall not otherwise change the characteristics of that person's membership).

SECTION 2 ACTIVE MEMBERSHIP

Will be granted to cardiac surgeons who practice pediatric and congenital heart surgery anywhere in the world, who have fulfilled the membership requirements and who pay the annual dues.

SECTION 3 SENIOR MEMBERSHIP

Will be automatically granted to any active member or associate member in good standing who reaches the age of seventy. It may also be granted to a younger member only if unable to practice because of disability.

SECTION 4 HONORARY MEMBERSHIP

Shall be conferred by the Board of Directors to individuals who have made distinguished and exceptional contributions to the advancement of Pediatric and Congenital Heart Surgery globally. Individuals that were selected as Honorary Members prior to the Inaugural Meeting of the World Society in 2007 (at which time the World Society was an unincorporated association) will be acknowledged as Honorary Founding Members (although this shall not otherwise change the characteristics of that person's membership).

SECTION 5 ASSOCIATE MEMBERSHIP

May be granted to individuals in associate specialties such as pediatric cardiology, pediatric cardiac intensive care, pediatric cardiac anesthesia, pediatric perfusion, adult congenital cardiology, heart failure specialists that treat patients with pediatric and/or congenital heart disease, pediatric or congenital cardiac nurses and ultrasonographers, and other deserving individuals not among the previously mentioned specialties whose work is related to patients with pediatric and/or congenital heart disease.

SECTION 6 JUNIOR MEMBERSHIP

May be granted to trainees (fellows or residents) in cardiac surgery and/or in pediatric and congenital heart surgery prior to obtaining certification and/or starting practice.

SECTION 7 THE DATABASE COMMITTEE

Of the World Society is to work towards the creation of a Global Database for Pediatric and Congenital Heart Surgery. This goal shall be achieved in cooperation with existing continental databases and other societies. The Database Committee shall be composed by one to three members per continent in addition to the President, First Vice-President and Secretary of the World Society. The Chair of the Database Committee shall be designated by the President and approved by the Governing Council.

SECTION 8 THE PUBLICATIONS COMMITTEE

Of the World Society shall oversee the development and maintenance of a website for the World Society, shall also oversee the establishment of a scientific journal, shall find a publisher for the journal, and shall oversee the business relationships between the World Society and a publisher. The Publications Committee shall have advisory oversight for all official publications of the World Society and shall make recommendation to the Editor and the Governing Council. The Publications Committee shall be composed of one or two members per continent in addition to the President, First Vice-President, the Executive Director and Secretary of the World Society. The President shall designate a Chair to the Publications Committee, to be approved by the Governing Council. The Publications Committee shall seek and recommend an Editor of the scientific journal of the World Society. The Editor shall then be selected by a vote of the Governing Council.

SECTION 9 THE FUNDRAISING COMMITTEE

Of the World Society shall be responsible for planning fundraising activities in order to support the work of the World Society to achieve its goals and fulfill its mission. The Fundraising Committee shall be composed of one to three members per continent in addition to the President, First Vice-President, Second Vice-President, Treasurer, Secretary and Executive Director. The Chair of the Fundraising Committee shall be designated by the President and approved by the Governing Council.

SECTION 10 MEMBERSHIP OBLIGATIONS

include providing accurate contact information, an exact address of practice, accurate academic affiliations, prompt payment of annual dues and involvement in the affairs of the World Society. Failure to pay the annual dues for 2 consecutive years and failure to attend the official meetings of the World Society for 3 consecutive times will be considered resignation from the World Society.

SECTION 11 VOTING RIGHTS

Active Members, Founding Members and Honorary Members, present at any meeting of the members, and in good standing, shall each be entitled to one (1) vote on any matter or business submitted to such meeting. Other categories of members shall not be entitled to vote at such meetings

SECTION 12 RESIGNATION

as a member of the World Society shall be deemed to have occurred, and the individual in question shall be deemed to no longer be a member, in the event that any one or both of the following occurs: (i) the member fails to pay membership dues for two (2) consecutive years, or (ii) the member fails to attend three (3) consecutive Annual meetings of the World Society. A member may withdraw as a member by simple notice to the World Society, but shall not be entitled to a refund of any membership dues.

ARTICLE 6: BOARD OF DIRECTORS

The Board of Directors of the World Society shall also be called The Governing Council and subject to the approval of the membership, shall be composed of the President, First Vice-President, Second Vice-President, Secretary, Treasurer, Executive Director, Editor and four (4) Directors (Councilors) per continent (Africa, Asia, Europe, North America (and the Caribbean), South America (and Central America) and one (1) Director (Councilor) from Australia and Oceania. Additionally, each member of the Council must be an Active, Founding or Senior member of the World Society. The members of the Council must be nominated by the Nominating Committee and approved by the membership. Quorum for Governing Council meetings shall be 13. All members of the Governing Council have equal voting rights and decisions are made by a majority by vote of those present. The Governing Council must meet at least once a year. The Governing Council shall have an Executive Committee, which will be composed of the Officers of the World Society and an additional member of the Governing Council from each continent selected by the President.

Notwithstanding that various regions of the world are represented among the Directors as referred to above, all members with a right to vote shall vote for the entire Board of Directors (i.e., specific directors shall not be elected by a certain group of members).

The term of office of all Directors shall be for a period of four years, the whole in accordance with and subject to the provisions hereof.

Members of the Governing Council cannot be less than eighteen (18) years of age, must be individuals and must have the capacity under law to contract.

Directors will be elected in a staggered fashion on a rotation basis per region, with one new Director per year (and with the longest serving Director who is not an Officer, not to be reappointed or re-approved as a Director) to assure continuity. Directors whose term has expired will hold their position until a new Director has been named in their place. Notwithstanding the foregoing, the members can vote to remove a Director prior to termination of his or her term due to such Director not having performed his or her duties adequately.

Members of the Governing Council must participate in the affairs of the Governing Council, and must be in good standing by paying annual dues, attending an officially designated World Society meeting at least every two years, and attending a Governing Council meeting at least once every two (2) years. Inability to attend Governing Council Meetings must be communicated to the World Society.

Subject to the next paragraph, notice of a meeting of the Governing Council shall be provided by the President, or on the instructions of the President, by the Executive Director, Secretary or Manager of the World Society, no less than three (3) months prior to such a meeting. Agenda for such a meeting shall be provided no less than one (1) month prior to such a meeting.

At such meetings, the Directors in attendance shall meet together in each other's physical presence. However, it is permitted for a meeting of the Governing Council to be held by teleconference, or by another electronic or other communication facility or method that permits all participants to communicate adequately with each other, in which case notice for such a meeting shall be provided by the President, or on the instructions of the President by the Executive Director, Secretary or the Manager of the World Society, no less than thirty (30) days prior to such a meeting, and agenda for such a meeting shall be provided no less than ten (10) days prior to such a meeting.

The Governing Council shall be the governing body of the World Society, and shall have full power to manage all affairs of the World Society.

ARTICLE 7: OFFICERS

The Officers of the World Society must be nominated by the Nominating Committee and approved by the Governing Council. The Officers of the World Society shall be the President, First Vice-President, Second Vice-President, Secretary, Treasurer, Editor and Executive Director. The President, First Vice-President and Second Vice-President must be from different continents. There are no such restrictions for the positions of Secretary, Treasurer, Editor and Executive Director. Subject to the approval of the members, as referred to at Article 6, the Officers of World Society shall be members of the Governing Council. The Officers of the World Society and an additional member per continent shall compose the Executive Committee of the World Society, which shall be responsible for setting of the time, place and agenda of the Governing Council meetings. All Officers must be Active, Founding or Senior members.

SECTION 1

The President shall be the Chief Executive Officer of the World Society. The President shall preside over and organize the Annual Business meeting of the World Society (sometimes also referred to herein as the Annual Meeting of the Members, or the Annual Meeting), and all the meetings of the members, of the Governing Council and of the Executive Committee of the World Society. In addition to designating the Chairs of the standing Councils and Committees of the World Society, the President may, upon approval of the Executive Committee, appoint ad hoc committees he/she deems appropriate to further the goals and mission of the World Society. Such ad hoc committees shall act in an advisory capacity only and may not exercise any powers that rest with the President or the Governing Council. The President shall be a member of all the Committees (sometimes referred to as Councils). The President shall be the official representative of the World Society and shall be responsible for the dissemination of information to members. The President may certify documents of the World Society as having been issued by it.

SECTION 2

The First Vice-President shall assist the President as requested or needed. The First Vice President shall assume the duties of the President if the latter is incapable or unable to do so. The First Vice-President shall be an ex-officio member of all the Councils and Committees in which he is not already a voting member. The First Vice-President shall become President if he/she so desires upon completion of the terms of office and upon approval of the Governing Council.

SECTION 3

The Second Vice-President shall assist the President and the First Vice-President as requested or needed. The Second Vice-President shall assume the duties of the First Vice-President if the latter is incapable or unable to do so. The Second Vice-President shall become the First Vice-President President upon completion of the terms of office and upon approval of the Governing Council.

SECTION 4

The Secretary shall facilitate the work of the President, the Executive Committee and the Governing Council and will ensure that minutes are recorded for the meetings of the Executive Committee, the Governing Council and Annual Meeting of the World Society. Under the direction of the President and the Executive Committee, the Secretary shall facilitate the workings of the various standing councils and committees. The Secretary shall be an ex-officio, non-voting member of all standing councils and committees in which he is not already a regular voting member.

SECTION 5

The Treasurer under the direction of the President and the Executive Committee shall supervise the financial affairs of the World Society. The Treasurer shall approve payment of all bills and shall countersign all checks exceeding an amount to be determined by the Executive Committee. In the absence of the Treasurer, checks shall be countersigned by the President, the Executive Director or the Secretary of the World Society. Financial records and bank accounts shall be maintained under the direction of the Executive Director, who shall provide information and documentation for audit by an independent certified public accountant. The Executive Director shall provide the Treasurer with an annual report for presentation to the membership at the Annual Meeting of the Members of the World Society. In the event the Treasurer is unable to fulfill the functions of his/her office, either the President, the Executive Director or the Secretary may assume these duties.

SECTION 6

The Editor shall be the Editor of the World Journal for Pediatric and Congenital Heart Surgery, the official scientific publication of the World Society. The Editor shall be appointed by the Governing Council and approved by the members.

SECTION 7

The Executive Director shall be the Chief Operating Officer of the World Society and shall be appointed by the Governing Council. The Executive Director shall be responsible for all operations of the World Society under the direction of the Governing Council. The Executive Director shall be an ex-officio member of all the Councils and Committees in which he is not already a voting member. The Founding President will also serve as Founding Executive Director.

SECTION 8

Officers of the World Society can be removed by the Governing Council prior to termination of their terms only for failure to perform their duties adequately. Officers can submit a resignation to the President or Executive Director if they wish to resign prior to the end of their term.

Meetings of the Executive Committee are called by the President or Executive Director, and they are chaired by the President. Notice for meetings should be no less than thirty (30) days, and notice for meetings by teleconference, or by another electronic or other communication facility or method that permits all participants to communicate adequately with each other, should be no less than seven (7) days. Quorum for such meetings should be six (6), and must include the President, First Vice-President, Secretary and Executive Director. All members of Executive Committee have equal voting rights and decisions are made by a majority vote of those present. In the event of a tie, the President shall be entitled to vote a second time and that shall be the deciding vote.

ARTICLE 8: TERMS OF OFFICE

SECTION 1

The President shall serve a non-renewable two-year term starting at the conclusion of the Annual Business meeting of the Members of the World Society that takes place during a biennial Scientific Meeting. The President may not hold any other position of Officer of the World Society with the exception of Executive Director, Editor or Historian. Upon the termination of office, the Immediate Past President will join the Nominating Committee. The Founding President will remain the Executive Director upon termination of office of Presidency.

SECTION 2

The First Vice-President shall serve a non-renewable two-year term starting at the conclusion of the Annual Business meeting of the members of the World Society that takes place during a biennial Scientific Meeting. Upon termination of office the First Vice-President may accede to the position of President should he/she so desire.

SECTION 3

The Second Vice-President shall serve a non-renewable two year term starting at the conclusion of the Annual Business meeting of the members of the World Society that takes place during a biennial Scientific Meeting. Upon termination of office the Second Vice-President may accede to the position of First Vice-President should he/she so desire.

SECTION 4

The Secretary of the World Society shall be appointed to a four-year term, renewable once.

SECTION 5

The Treasurer of the World Society shall be appointed to a four-year term, renewable once.

SECTION 6

The Executive Director of the World Society shall be appointed to a variable term by mutual agreement with the Governing Council of the World Society. The Founding President will remain the Executive Director upon termination of office of Presidency.

SECTION 7

The Editor of the World Society shall be appointed to an initial term of 5 years renewable to a variable term subsequently by mutual agreement with the Governing Council.

SECTION 8

The chairs and members of the Councils and Committees shall be appointed to a four-year term on a rotation basis (unless otherwise indicated at Article 9).

ARTICLE 9: COMMITTEES

In addition to the Governing Council the World Society will have several Councils and Committees. These are the following:

- **Global Council on Training and Education Standards**
- **Global Council on Pediatric and Congenital Heart Surgery Services**
- **Executive Committee**

  Membership Committee
- **Program Committee**
- **Nominating Committee**
- **Database Committee**
- **Publications Committee**
- **Fundraising Committee**

SECTION 1

the Global Council on Training and Education Standards shall be responsible for establishing global standards for training in Pediatric and Congenital Heart Surgery. It shall also be responsible for establishing global education objectives during training and with respect to maintenance of competence for the practicing pediatric and congenital heart surgeon. **The Global Council on Training and Education Standards** will work to collaborate and to coordinate its standards and objectives with existing continental organizations working to establish similar standards. The ultimate goal is to establish global portability for the precious commodity that is the highly skilled pediatric and congenital heart surgeon. This portability will facilitate the provision of services in areas of dire need of pediatric and congenital heart surgeons.

SECTION 2

The Global Council on Pediatric and Congenital Heart Surgery Services shall be responsible for assessing the current distribution of Pediatric and Congenital Heart Surgery services across the world. It shall be responsible for creating a comprehensive global plan for establishing a network of continental and regional hub centers with well-defined responsibilities for training, education, support and services to patients. This will set the foundation for the World Society fulfilling its central mission.

SECTION 3

The Executive Committee of the Governing Council of the World Society shall be composed of the Officers of the World Society and an additional member of the Governing Council from each continent nominated by the President. The Executive Committee shall meet at a time and place as called by the President or by three others among its members. Quorum for such meetings should be six (6), and must include the President, First Vice-President, Secretary and Executive Director. The Governing Council can vote to remove a member of the Executive Committee prior to termination of his or her term due to such member of the Executive Committee not having performed his or her duties adequately.

SECTION 4

The Membership Committee shall consider all applications for membership and report its recommendations to the Governing Council of the World Society. The Membership Committee is responsible for researching pertinent information on a specific candidate. However, it shall be the responsibility of the candidate for membership to ensure that all pertinent information needed for the application reaches the World Society offices. The Membership Committee also shall oversee the recruitment of new members. The Membership Committee shall be composed of one to two members per continent in addition to the President, the Executive Director and the Secretary of the World Society. The Chair of the Membership Committee shall be designated by the President and approved by the Executive Committee.

SECTION 5

The Program Committee shall arrange, with instructions from the Governing Council and/or Executive Committee of the World Society the scientific program for the meetings of the World Society. The membership of the Program Committee shall consist of at least one but no more than three members per continent in addition to the President, First Vice-President, the Executive Director and Secretary of the World Society. The President shall designate a Chair of the Program Committee, which shall be approved by the Governing Council.

SECTION 6

The Nominating Committee shall prepare the slate of nominees for Officers of the World Society and for members of the Governing Council. The last four living Presidents, First Vice-Presidents and Second Vice-Presidents, and Executive Directors of the World Society shall compose the Nominating Committee. The Chair of the Nominating shall be the most senior Past President.

SECTION 7

The Database Committee of the World Society is to work towards the creation of a Global Database for Pediatric and Congenital Heart Surgery. This goal shall be achieved in cooperation with existing continental databases and other societies. The Database Committee shall be composed by one to three members per continent in addition to the President, First Vice-President and Secretary of the World Society. The Chair of the Database Committee shall be designated by the President and approved by the Governing Council.

SECTION 8

The Publications Committee of the World Society shall oversee the development and maintenance of a website for the World Society, shall also oversee the establishment of a scientific journal, shall find a publisher for the journal, and shall oversee the business relationships between the World Society and a publisher. The Publications Committee shall have advisory oversight for all official publications of the World Society and shall make recommendation to the Editor and the Governing Council. The Publications Committee shall be composed of one or two members per continent in addition to the President, First Vice-President, the Executive Director and Secretary of the World Society. The President shall designate a Chair to the Publications Committee, to be approved by the Governing Council. The Publications Committee shall seek and recommend an Editor of the scientific journal of the World Society. The Editor shall then be selected by a vote of the Governing Council.

SECTION 9

The Fundraising Committee of the World Society shall be responsible for planning fundraising activities in order to support the work of the World Society to achieve its goals and fulfill its mission. The Fundraising Committee shall be composed of one to three members per continent in addition to the President, First Vice-President, Second Vice-President, Treasurer, Secretary and Executive Director. The Chair of the Fundraising Committee shall be designated by the President and approved by the Governing Council.

ARTICLE 10: FINANCES

The World Society is a not-for-profit organization that shall be incorporated in Canada.

SECTION 1

The fiscal year of the Association shall be determined by the Governing Council of the World Society.

SECTION 2

Initiation and annual dues shall be determined by the Governing Council of the World Society.

SECTION 3

Assessments may be levied upon active members from time to time as decided by the Governing Council of the World Society.

SECTION 4 EXPENSES:

1. Expenses of less than US Dollars 500 may be independently authorized by the President, Executive Director, or Treasurer.

2. Expenses of greater than or equal to US Dollars 500 and less than US Dollars 1000 may be authorized by signatures from both the Treasurer and either the President or Executive Director.

3. Expenses of greater than or equal to US Dollars 1000 will require majority approval and vote of the Executive Committee.

ARTICLE 11: MEETINGS

The time and place of the Annual Meeting of the members of the World Society will be determined by the Governing Council. The Annual meeting will take place during the general Scientific Meetings held every two years. In the years without general Scientific Meetings, the Annual meeting will be held during a Regional Meeting designated for that purpose by the Governing Council, or during a World Summit meeting designated for that purpose by the Governing Council. A minimum of five percent (5%) of the voting members are needed to requisition the Governing Council to call a special general meeting of the World Society. With regard to all Annual and special meetings of the members, all meetings of the Governing Council, or any council or committee thereof, notice of any such meeting shall be in writing (this includes, without limiting the generality of the foregoing, electronic e-mail), shall be sent to the recipients thereof at their respective last known address on the books and records of the World Society and shall be given either by notice published in a World Society newsletter sent to the recipients and/or by mail or other reasonable means to individual members, and the notice shall be a minimum of twenty-one (21) days unless a different notice period is provided for in these by-laws for the meeting in question. With regard to meetings of members other than the Annual Meeting, the notice shall contain sufficient information to allow the members to form a reasoned judgment as to the matters to be discussed thereat. It shall be open to the recipient of a notice to waive the necessity of receipt thereof, and to ratify, approve and confirm proceedings taken at the meeting that was the object of the notice.

Notwithstanding the foregoing, members will be notified of the Annual Meeting at least four (4) months in advance. The presence of voting members constituting no less than five percent (5%) of the voting members shall be necessary to constitute a quorum at any meeting of the members (the “5% Minimum Members Quorum”). In no event shall such 5% Minimum Members Quorum be less than two voting members.

The annual financial statements of the World Society shall be made available for examination by the members at the registered office (head office) of the World Society, no less than twenty-one (21) days prior to the Annual Meeting, and the members shall be so notified. Any member may, upon request, obtain a copy free of charge at the registered office or by prepaid mail.

Every member entitled to vote at a meeting of members and in attendance thereat is entitled to give one vote. Unless the Canada Not-for-profit Corporations Act, and the regulations thereunder, or the by-laws of the World Society otherwise provide, all questions proposed for the consideration of the members at any meeting of members shall be determined by the majority of votes.

ARTICLE 12: BY-LAW AMENDMENTS AND ENACTMENTS

Suggested amendments to the by-laws, or suggestions for the enactment of by-laws, must be forwarded to the Governing Council at least six months prior to a meeting of the World Society for consideration. The purpose for such amendments must be clearly explained by their author or authors. The Governing Council shall study and then accept or reject such amendments or enactments by a majority vote. An amendment or enactment of by-laws accepted by the Governing Council shall be put forward to a vote by the members at a meeting of the members of the World Society. A by-law amendment or enactment will require a two-thirds vote in favor by the members at the meeting. By-laws may be repealed in accordance with the foregoing provisions of this Article 12, mutatis mutandis.

ARTICLE 13: EXECUTION OF DOCUMENTS

Unless otherwise directed by the Governing Council, deeds, instruments, contracts, certificates and other documents ("Documents") will be signed on behalf of the World Society by the Executive Director on the instructions from the President, and failing that, Documents can be signed on behalf of the World Society on the instructions from the President or Executive Director by one off the following officers in the following order: First Vice-President, Second Vice-President, Secretary, Treasurer.

The Directors may from time to time on behalf of the World Society borrow money upon the World Society's credit, and secure repayment of such borrowings by hypothec, mortgage, charge, pledge, security interest or other collateral security upon any or all of the present and future property of the World Society, and any related loan and security documents may be executed on behalf of the World Society as referred to in the previous paragraph of this Article 13.

ARTICLE 14: AUDITORS

An auditor of accounts of the World Society will be appointed at the Annual meeting of the members of the World Society. The auditor will audit the accounts of the World Society and make a report to the members at the Annual Meeting. To the extent permitted by law, the members may appoint instead a public accountant or accountant that will prepare review engagement or compilation financial statements.

ARTICLE 15: REMUNERATION

Directors, officers and members of councils or committees shall not be remunerated by the World Society for acting as such, and shall not directly or indirectly receive any profit from his or her position as such, provided that they may be reimbursed for reasonable expenses incurred in the performance of his or her duties. However, such persons shall not be prohibited from receiving compensation for services provided to the World Society in another capacity, and the Editor shall receive compensation for the carrying out of his or her functions.

ARTICLE 16: CORPORATE SEAL

The seal, the impression of which appears in the margin is adopted and acknowledged as being the seal of the World Society. The seal shall remain in the custody of the Founding President until the earlier of his death, his physical or mental incapacity reasonably preventing him from usefully retaining such custody, or him no longer wanting to retain such custody, in which event the custody of the seal shall be with the Executive Director.

ARTICLE 17: MISCELLANEOUS

All existing by-laws of the World Society, except for any banking by-laws, are hereby repealed, subject to the adoption of the current by-laws by the Governing Council and confirmation by the Members of the World Society, as required by law.

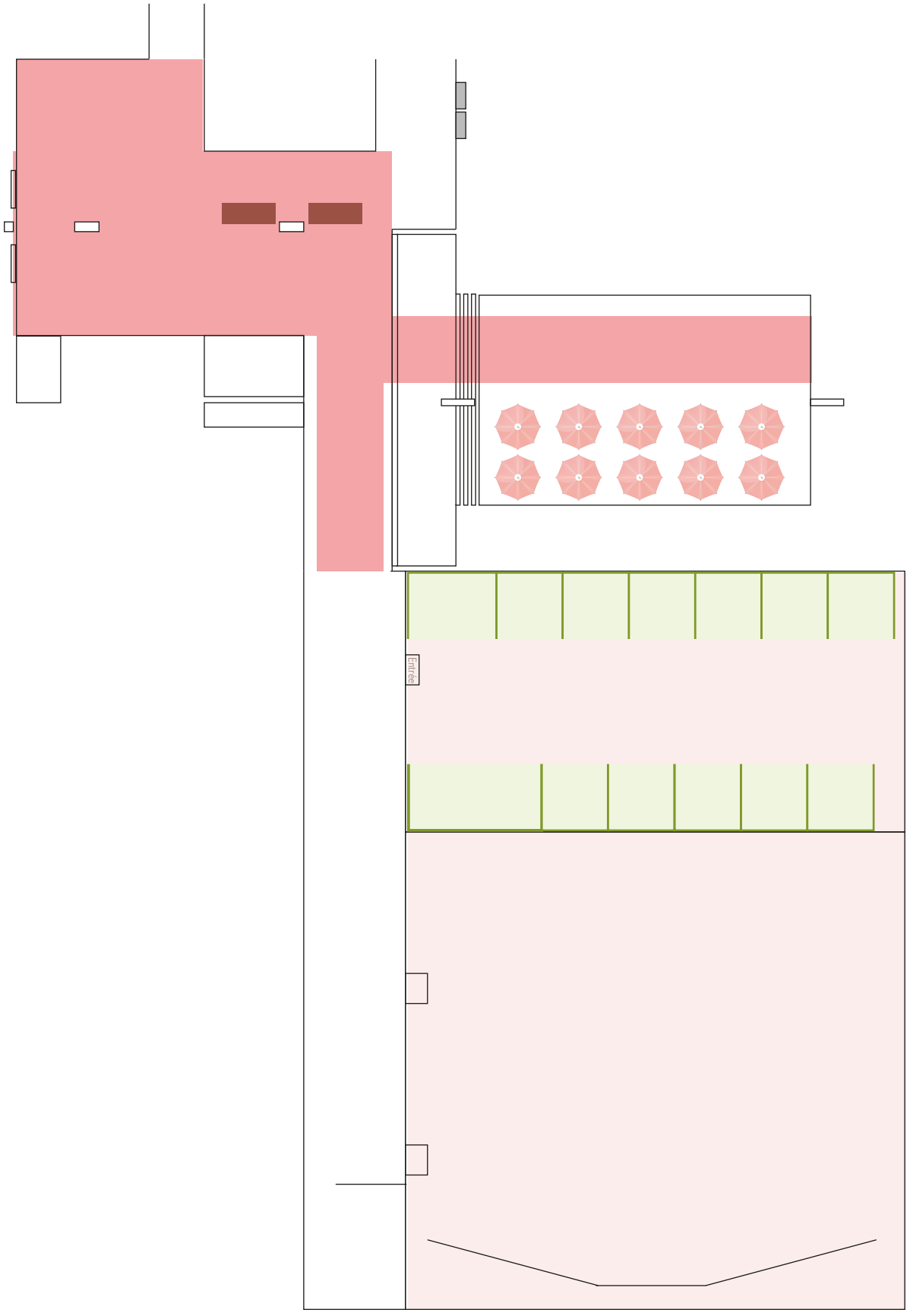
ARTICLE 18: DISSOLUTION

The World Society for Pediatric and Congenital Heart Surgery may be dissolved by a two-thirds vote of all of the members entitled to vote.

World Society was incorporated in Canada effective April 7, 2011.

Registered Office (Head Office):

World Society for Pediatric and Congenital Heart Surgery
The Montreal Children's Hospital
2300, Tupper street, Room C-829
Montreal, Quebec, Canada
H3H 1 P3


Entrée

USEFUL INFORMATION A-Z

USEFUL INFORMATION A-Z

Mobile App

Delegate Badges

Climate

Coffee Breaks

Disclaimer

Emergency numbers

Evaluation

Exhibition

Language

Presenters Information

Disclosures

Speakers Preview Desk

Oral Presentations

Case Presentations

Video Presentations

Poster & Presentation

Poster Presentation Instructions

Registration

Security

Marrakech

Venue

WI-FI Internet Access

Registration

Hands -On : Sugical Simulation Worshop