

Reinforcing the role of a cardiac-focused physical examination for all infants

Cardiology for paediatricians and neonatologists, Brighton 2015

The task of diagnosing and managing cardiac problems in neonates and children has led to a growing demand for training and professional development related to the paediatric cardiology subspecialty. In an attempt to specifically address the needs of paediatric and neonatal trainees and consultants, Drs Poothirikovil Venugopalan and Ramon Fernandez developed a one-day course held in Brighton.

The event was jointly organised by the Brighton and Sussex University Hospitals NHS Trust and Paediatricians with Expertise in Cardiology Special Interest Group (PECSIG), and supported by Neonatologists with an Interest in Cardiology and Haemodynamics (NICHe) and the British Association of Perinatal Medicine (BAPM).

The aim of the event was to:

- upgrade knowledge and skills related to the diagnosis and management of common congenital heart diseases, including dietary intervention and surgical aspects
 - update on the latest trends in patent ductus arteriosus (PDA) assessment and functional echocardiography studies in the sick neonate
 - better understand reporting and limitations of a 24-hour tape in children
 - refine skills in interpretation of neonatal and paediatric echocardiograms.
- Consultant Neonatologist Dr Ryan

Watkins, Clinical Director at the trust's Directorate of Children's Services, inaugurated the course.

In his presentation on neonatal PDA, Samir Gupta, Professor of Neonatology at University of Durham and Director of Research and Development at University Hospital of North Tees, outlined the differences between traditional and more current views of PDA. He then went on to talk about the importance and role of echocardiographic ductal assessment in the newborn baby. Professor Gupta emphasised how ductal assessment in the first 72 hours is limited to ductal size and flow patterns. Later, left heart size and function, as well as indicators of systemic blood flow, can be used to evaluate the duct. Examples of what constitutes a significant PDA were given along with an overview of current treatment options.

Using a case-based approach Dr Kuberan Pushparajah, Consultant Paediatric Cardiologist from Evelina London Children's Hospital, reinforced the role of a detailed and cardiac-focused physical examination of all infants for early detection and timely referral. Applying the general distinction of cyanotic and acyanotic heart lesions, he presented a simple and quick decision tree to guide further management and optimise outcome for the critical congenital heart diseases.

Dr Pushparajah went on to explain the difficulties in distinguishing between congenital heart disease and respiratory disease with perhaps the most difficult being persistent pulmonary hypertension of the newborn.

David Anderson, Professor of Paediatric Cardiac Surgery at King's College School of Medicine and Senior Consultant Cardiothoracic Surgeon, Evelina London Children's Hospital, focussed on the management of single functional ventricle lesions and their staged surgical approach, explaining the different procedures such as the Norwood stages, the bi-directional Glenn shunt and hemi-Fontan procedure.

In the afternoon breakout sessions, Professor Gupta discussed the value of functional targeted echocardiography as a tool to guide and optimise the management of the sick neonate. Mr Chris Smith, Senior Paediatric Dietician at the trust, emphasised the importance of monitoring and early intervention in the nutritional management of the sick cardiac infant. Dr Ari Kannivelu, Paediatrician with Cardiology Expertise at Shrewsbury and Telford Hospital NHS Trust, reviewed his collection of interesting echo clips complemented by case studies. Ms Denise Bridges, Paediatric Cardiac Physiologist at Evelina London, reviewed the indications and limitations of 24-hour tapes in children and presented examples of normal and abnormal tape recordings.

The Royal College of Paediatrics and Child Health awarded up to six CPD points for the course. A provisional date of 24 June 2016 has been set for a follow-up meeting next year; further details available at www.brightonpaediatrics.co.uk.



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