PECSIG Abstracts

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Sian Jenkins, Ankita Jain, Manjunath Shetthalli, Orhan Uzun. University of Wales Hospital, Cardiff

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Title: Paediatric Patients With Cardiac Problems Referred To Tertiary Centre From A District Hospital. Are We Getting It Right?

Author/s & Institution: C. Kotidis, H. Fayyaz, O. Hamilton, R. Ewart, M. Abdelaziz
Paediatric unit, Whiston Hospital

Corresponding Authors Name: Charalampos Kotidis, ST5 in Paediatrics

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Objective: This was a retrospective audit to assess the accuracy of the initial diagnosis by a P.E.C.S.I in Whiston after referral to a tertiary centre [Alder Hey Children's Hospital (AHCH)].
Methods: Data collected via electronic medical records database using a pre-designed proforma over a 1 year period (Feb 2013 - Feb 2014).
Results: 300 patients with cardiac problems were reviewed in cardiac clinic at Whiston. 28 (9%) patients referred to cardiology in AHCH. 14/28 (50%) were initially referred by GPs and 12/28 (48%) from paediatric consultants. 15/28 (54%) were referred for evaluation of a heart murmur. More than half (15 patients, 53%) waited less than 6 weeks for the appointment and only 1 patient more than 12 weeks. The underlying pathology found was variable due to the small number of patients, but 12 patients (43%) had a diagnosis of PDA, ASD or VSD. 96% of the referred patient were seen within 12 week. 24 patients (89%) had their diagnosis confirmed in AHCH and 1 had unknown outcome. Two of the patients were referred for suspected ASD, which was ruled out. 19 patients (70%) continued to have follow up in AHCH, 5 discharged (19%) and only 2 referred back to Whiston.
Discussion/Conclusion: Only a small fraction of patients reviewed in the district hospital by a P.E.C.S.I referred to tertiary centre. All patients were reviewed after appropriate for their condition waiting time and were referred appropriately to the tertiary centre. ASD pose a diagnostic uncertainty in a DGH setting.

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Title: Newborn Screening For Congenital Heart Disease– Comparison With NIPE Standards

Author/s & Institution: C Kotidis, K Adhvaryu, R Bedford, M Abdelaziz
Paediatric unit, Whiston Hospital

Corresponding Authors Name: Charalampos Kotidis, ST5 in Paediatrics

Corresponding Authors Email:

Abstract:
Objective: This was a retrospective audit to assess unit's compliance with the national standards for Newborn and Infant Physical Examination (NIPE) and specifically for babies referred for a possible congenital heart defect.
Methods: Retrospective review of patient notes over a 5 year period (2006-2010) and comparison with NIPE 2008 edition.
Results: We identified 131 babies (average age 54 days) referred following a NIPE examination out of 1455 totally referred to heart murmur clinic, of which 73 (55.7%) were seen within 4 weeks target. There was a large year by year fluctuation of the performance (range 43-71%). 23 out of those 58 (40%) not seen within 4 week were found to have a congenital heart anomaly. The majority had either a ventricular septal defect [13 (57%)] or a patent foramen ovale [6 (26%)]. Nine patients (39%) needed further follow up. All patients identified as screen positive and had a higher clinical risk, but were able to go home, were reviewed in the 10 days target. No adverse outcome was identified in our cohort.
Discussion/Conclusion: While our unit's performance partially lagged behind national standards for 4 week review, the 10 days review was 100%. Following the audit, we introduced an electronic referral to murmur clinic and increased the number of clinics to 3 per month. We purchased a new echocardiographic machine. We are now re-auditing to assess the impact of our changes and pulse oximetry on actual pathway. There is no evidence from our data to suggest a 4 week review.

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Title: Usefulness of Routine Pulse Oximetry in 2 Cases of Critical Congenital Heart Disease (CCHD)

Author/s & Institution: Royal Bolton Hospital NICU

Corresponding Authors Name:
Dr Archana Mishra (Consultant Neonatologist, Royal Bolton Hospital)
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Abstract:

Critical congenital heart disease (CCHD) remains a significant cause of neonatal mortality and morbidity. A large multicenter study ("PulseOx") showed that pulse oximetry is a simple yet effective screening tool to aid detection of CCHD. However, lesions such as interrupted aortic arch and coarctation can be difficult to diagnose - in the study, 5/8 cases were missed on pulse oximetry.

We report 2 cases of CCHD which were diagnosed following routine screening.

Case 1:
A term baby born at 39 weeks had his NIPE at 31 hours old. Noted to have 3/6 ejection systolic murmur (ESM), weak femoral pulses and low post-ductal saturation (70%). Echo showed interrupted aortic arch type A, large perimembranous VSD and a closed ductus arteriosus. He was commenced on Prostin infusion, intubated and ventilated prior to transfer on day 3for surgical repair. He was discharged at 2 weeks old but required balloon dilatation of re-coarctation at 4 months old.

Case 2:
A term baby born at 40 weeks had her NIPE at 27 hours old. Noted to have 3/6 ESM, low post-ductal saturation (88%) but palpable femoral pulses. Echo showed hypoplastic aortic arch with discrete narrowing at the isthmus, moderate sized PDA and small perimembranous VSD. She was commenced on Prostin infusion and transferred on day 3for surgical correction, which was complicated by sigmoid perforation. She was discharged at 1 month old but required resection of sub-aortic membrane at 3 years old.

Learning points:
Pulse oximetry is a useful screening tool to identify CCHD in neonates.

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Title: Kawasaki Disease, What a DGH can do?

Author/s & Institution: : Khalid Abdelhafiz, Nicholas Demetriou , Lakshmi Chilukuri, Maysara Abdelaziz

Corresponding Authors Name: Maysara Abdelaziz

Corresponding Authors Email:

Abstract:

Objective: To study the presentation, complications and management of Kawasaki Disease against local and regional guidelines in a DGH over 5 years

Methods: The notes of all cases presented with Kawasaki disease to Whiston Hospital over the last 5 years were reviewed retrospectively.

Results: Total of 10 patients were diagnosed with Kawasaki over 5 years. Only half of them had typical presentation. Only two had all the investigations recommended to look for alternative diagnoses. CRP and high platelet were found to be high on 90% of the patient. All patients were treated within 2 weeks with immunoglobulins, high dose Aspirin followed by low dose Aspirin with 100% response rate. ECG and Echo were done at presentation to all patients locally with a follow up scan at 3 and 8 weeks. However, only 50% had their follow-up at one year.30% had cardiac abnormities, 2 coronary arteries aneurysms and one myocarditis. Two were referred to the tertiary unit one due to giant aneurysms and the second with suspected intestinal obstruction. 2 were found to have confirmed viral infection with doubtful significance

Conclusion: Low index of suspicion as only 50 % of patients presented with typical Kawasaki Disease. We reported higher incidence of cardiac complication in spite of full treatment (incidence is 25% in untreated patients). Although we did not report any immunoglobulin resistance, consideration should be given to the use of scoring system to identify those who may benefit from additional treatment such as steroid to reduce the risk of cardiac complications

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Title: Characteristics of Post-transplant lymphoproliferative disorders amongst paediatric heart transplant recipients in Sao Paulo, Brazil

Author/s & Institution: Adam Arshad[1], Estela Azeka[2]
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Abstract:

Introduction
We sought to better define the characteristics of PTLD in paediatric OHT (orthotopic heart transplant) recipients from a developing country.

Methods
Data was collected for all paediatric OHT recipients at the Heart Institute at the University of Sao Paulo, between May 1992 to January 2018. Group differences between the PTLD and non-PTLD cohorts were assessed by Fisher Exact and Mann Whitney U tests. Kaplan Meier curves analysed the survival, and freedom from PTLD.

Results
Data was reviewed for 200 paediatric OHT recipients. Overall 1, 5 and 10-year survival for the entire cohort was 77.1%, 64.7% and 52.9%. A total of 23 patients developed PTLD at a median 3.3 years (IQR: 0.7–9.3) after OHT. PTLD was diagnosed in 9.5% (n=136), 15.3% (n=78) and 29.3% (n=41) of living patients at 1, 5 and 10 years. The commonest form of PTLD was DLBCL (n=9), and most patients received rituximab with chemotherapy (n=14) as treatment. 11 patients with PTLD died and we identified no increased risk in mortality between the PTLD and non-PTLD cohorts (p=0.269). Freedom from disease recurrence and death after PTLD diagnosis was 73.9% (n=17), 52.1% (n=12) and 47.8% (n=11) at 1, 3 and 10 years.

Discussion
This is the first study to explore PTLD in a developing country. While we report a prevalence of PTLD similar to those reported in American studies, we found no increased risk of death from a PTLD diagnosis. We speculate that this is due to the high general rate of mortality amongst the cohort.

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Title: Expert consensus statement "Neonatologist-performed echocardiography (NPE) " : A pilot for training and accreditation in UK.

Author/s & Institution: Mahmoud Montasser, Anne Marie Heuchan, Lindsey Hunter.
Royal Hospital for Children, Glasgow.

Corresponding Authors Name: Mahmoud Montasser

Corresponding Authors Email:

Abstract:

Introduction:

Three expert consensus statements provide guidance to neonatologists performing echocardiography in Europe. [1-3] All recommend a structured training programme and clinical governance system for quality assurance. [1-3] The UK framework [2] proposes compulsory training in specialist paediatric cardiac centres and associated neonatal units.

Methods:

In a collaboration between the neonatology and cardiology units at Royal Hospital for Children in Glasgow, we piloted the delivery of the UK Neonatologist-Performed Echocardiography (NPE) framework. [2] The participant, a senior neonatal grid trainee, who had attended paediatric echocardiographic courses previously, undertook 6 months subspecialty paediatric cardiology (ST7) placement, followed by 12 months in neonatology. Protocols for assessment of patent ductus arteriosus (PDA) were developed and referral guidance agreed between the cardiology and neonatology units.

Results:

Although 20% protected echocardiography time, as recommended by the NPE framework, was not achieved, 100 echocardiographs were recorded and reviewed over a period of 13 months. All mandatory directly observed practical skills and case-based discussions were completed, and outpatient clinics requirements were met. Advanced skills were developed in assessment of global strain, using speckle tracking echocardiography, tissue doppler, and PDA and PPHN assessment.

Conclusion:

Adopting a competency-based approach, NPE training can be delivered within the UK neonatal training structure. Future consideration should be given to define basic and advanced echocardiographic skill curriculum and accreditation.

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Title: Acceptability of Newborn Pulse Oximetry Screening – Midwifery views

Author/s & Institution: Maria Giakoumi (Addenbrooke's Hospital - Cambridge University Hospital), Om Kumari Budha Magar (Medical student, University of Cambridge), Wilf Kelsall (Addenbrooke's Hospital - Cambridge University Hospital), Ying Hui Chee (Addenbrooke's Hospital - Cambridge University Hospital)

Corresponding Authors Name: Maria Giakoumi

Corresponding Authors Email:

Abstract:

Background:
Newborn Pulse Oximetry Screening (NPOS) has been evaluated in multiple studies as a screening tool for the detection of Congenital Heart Disease (CHD). The acceptability of this test amongst midwifery staff has not been documented.

Objective:
The aim of this study was to assess midwives' experience in using NPOS over the 4 years since it was introduced into this tertiary maternity unit in 2014.

Methods:
An electronic survey was sent to all midwives working in the unit. The survey requested feedback on the ease of NPOS utilization. The survey consisted of ten questions. On the feasibility scale, questions were scored on a scale from '1' to '10' with '1' being 'easy to perform with no disruption to care' and '10' being 'difficult with problems including delayed discharges'. Other questions explored the respondents' perception on usefulness and positive screening outcomes.

The data was analyzed using the Wilcoxon signed rank test pairing each respondent's ranking before and after NPOS introduction.

Results:
Complete responses were received from 99 of 236 midwives (42%). The average scale rankings of 3.46 pre and 2.38 post, indicate that the midwives were very positive about the NPOS (z-value -4.5575; p-value of < 0.001).

In addition, 95 (95%) of responding midwives stated that they routinely performed NPOS and 34 (35%) of them had at least one positive screening result. 'Cardiac anomalies' accounted for 15% of positive results. Other conditions identified include sepsis, diaphragmatic hernia and situs inversus. Virtually all, 98 (99%) respondents, felt that NPOS was an important screening tool.

Conclusion:
Our single-centre survey showed that the NPOS was felt to be easy to perform and it was regarded as an important screening tool that has become well established in this unit.

Total Word Count (279)

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Title: A 10-year audit assessment of cardiac surveillance pathway among patients with Tuberous Sclerosis Complex

Author/s & Institution:
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Dr Pradip Thakker
Nottingham Children's Hospital, Nottingham, UK

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Abstract:

Aim: To compare the local trust practice against the national and international recommendations of cardiac surveillance pathway for patients with tuberous sclerosis complex (TSC) for monitoring cardiac rhabdomyoma (CR) in view of developing a new guideline.

Method: TSC paediatric patients were identified by clinical geneticist over the last 10 years at our tertiary hospital. Their electronic notes were observed retrospectively then analysed statistically.

Results: Twelve cases aged between 6 months and 13 years were identified in total. Seven of them were female, and the mean age was 69 months. According to both the international tuberous sclerosis consensus group and American Heart Association (AHA) recommendation for cardiac surveillance, 12/12 cases had their baseline echocardiography (Echo) and electrocardiogram (ECG) done after TSC diagnosis in which 10 of 12 found to have cardiac rhabdomyoma at age of 3 years or less. Echo was obtained every 1 to 3 years in all patients compared to ECG that seemed to be irregular in terms of follow up intervals which were every 3 months to 4 years (median interval= 1 year). 12/12 had ambulatory 24hr ECG done although they were clinically asymptomatic in the last 10 years. 4/10 had rhabdomyoma regression (mean age=4 years). 1 of 4 was discharged from cardiology clinic and stopped further monitoring after 1 year of regression.

Conclusion: TSC patient had their cardiac evaluation more frequently although they were clinically stable. Therefore, this audit suggests that the local trust practice should follow the international recommendations in determining the long-term care pathway.

Total Word Count (Abstract Body Only)

47

Title: Cor triatriatum sinister presenting as Bronchial Asthma

Author/s & Institution: (1) Afzal Abubakker Bapputty Haji, Paediatric Clinical Fellow, University Hospital of Wales. (2) Venugopalan P, Consultant Paediatrician with Cardiology Expertise, Brighton & Sussex University Hospitals NHS Trust.

Corresponding Authors Name: Afzal Abubakker Bapputty Haji

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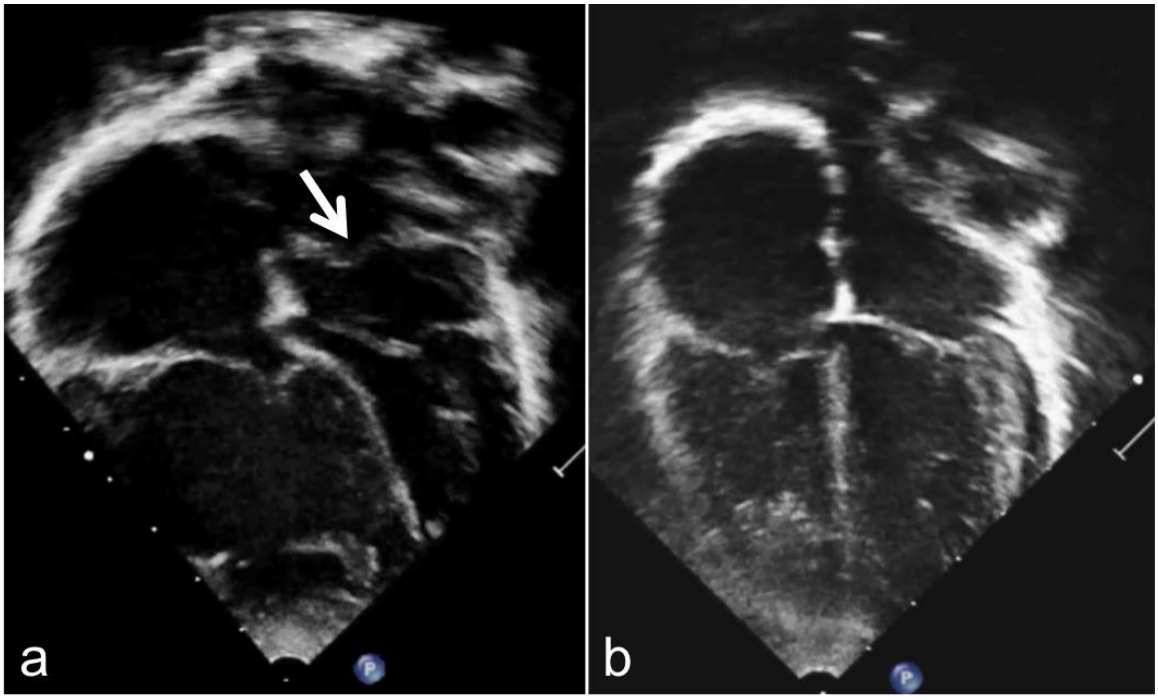
Abstract:

Cor-triatriatum sinister is a rare anomaly (0.1% of congenital heart diseases), characterized by a fibro muscular membrane, dividing the left atrium into 2 chambers and offering variable obstruction to left ventricular inflow.

We report a 3-year-old, under treatment for bronchial asthma for 2 years, with no relief to his cough and shortness of breath on exertion. His mother noted that he had a prominent cardiac chest impulse and further investigations revealed right axis deviation and right bundle branch block pattern on his electrocardiogram. His echocardiogram revealed a membrane across the left atrium (Figure) with a small restrictive orifice in its anterosuperior aspect. The pulmonary veins were draining into the left atrium above the membrane, and the left atrial appendage was below the membrane. Pulmonary hypertension was also evident from a tricuspid regurgitation jet velocity of 4 m/s. The membrane was surgically resected, with prompt relief to his symptoms and the pulmonary hypertension resolved.

We review the literature and discuss the embryology, clinical manifestations and diagnosis of this rare condition. Symptoms generally depend on the degree of inflow obstruction, and the severe cases can lead to pulmonary hypertension and right heart failure.
In Summary, we highlight the importance of considering a cardiac anomaly in children with bronchial asthma who do not respond to treatment. An electrocardiogram can give a valuable clue to this anomaly. The diagnosis is all the more important as the anomaly can be surgically corrected with complete resolution of symptoms and restoration of normal cardiac function.



2-D echocardiographic images from apical four chamber view -(a) showing the membrane in the left atrium (arrow), and (b) showing the left atrium after the membrane was resected.

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Title: Reflux or Seizures? Think beyond the box. A case report of an Unusual presentation of ALCAPA

Author/s & Institution: K Abdelhafiz, M Abdelaziz
Paediatric unit, Whiston Hospital

Corresponding Authors Name: Khalid Abdelhafiz, Paediatric Registrar

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Abstract:
Introduction: Anomalous origin of the left coronary artery from the pulmonary artery (ALCAPA) is a rare but serious congenital cardiac anomaly. Diagnosis can be challenging as maybe mistaken for common paediatric conditions such as colic, reflux or bronchiolitis.
Case report: A male infant presented in the first week of life with persistent vomiting and irritability with feeding and diagnosed as possible GORD with CMPA and treated accordingly with subjective improvement. Also, frequent neonatal seizures were observed with normal EEG and brain MRI. However, those were controlled with phenobarbitone. A routine ECG revealed normal. He was admitted twice with left lower lobe pneumonia and RSV bronchiolitis. In the latter admission, escalated respiratory support was needed and he was transferred to a tertiary unit. CXR showed cardiomegaly and Echocardiography revealed LCA arising from pulmonary artery. Following conservative management of heart failure, a successful surgical repair was done.
Discussion: This patient had different symptoms related, retrospectively, to ALCAPA. Recurrent and severe respiratory symptoms needing escalated respiratory support should prompt a clinical question of alternative diagnoses. Left lower lobe atelectasis with cardiomegaly on CXR should also raise the suspicion of cardiac causes. ECG can be unremarkable in cases of ischemia especially if ECG was taken early. This case represents a typical example.
Conclusion: Early detection of this anomaly requires a high index of suspicion when clinical course isn't following the natural history of the disease. CXR and ECG can be very useful screening tools and Echo remains the main diagnostic test.

Total Word Count (Abstract Body Only) 248

Bronchiolitis , Reflux or Seizures ? Think beyond the box.
A case report of an Unusual presentation of ALCAPA

Khalid Abdelhafiz, Maysara Abdelaziz
(Department of General Paediatrics, Whiston Hospital)

Introduction

Anomalous origin of the left coronary artery from the pulmonary artery (ALCAPA) (Figure 1) is a rare but serious congenital cardiac anomaly of the embryonic division of the truncus arteriosus, resulting in coronary artery abnormality with an incidence of about 1 in 300,000 births [1].

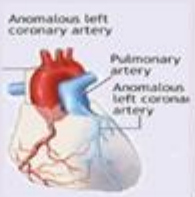

Figure 1

Diagnosis of ALCAPA can be challenging if not clinically suspected as symptoms can vary largely. Pallor, irritability, and diaphoresis after feeding are some of the presenting complaints. Thus, it may be mistaken for common paediatric conditions such as colic, reflux or bronchiolitis.

However, the prognosis is good with early surgical correction, but awareness of this condition is essential for prompt diagnosis and referral to a tertiary cardiac centre.

Case report

A male infant was born at 39 weeks gestation presented initially in the first week of life with persistent vomiting and irritability with feeding. Subsequently, he was diagnosed as possible GORD with CMPA. He was treated with anti reflux medications and extensive hydrolysed formula. Interestingly, frequent neonatal seizures were observed with normal EEG and brain MRI. However, those were controlled with pheonbarbitone .A routine ECG revealed normal.

By the age of 3 months , he had continued to present with vomiting .Hence, his anti reflux medications were optimized with subjective improvement.

Over the next 2 months, he was admitted twice for distressing respiratory symptoms. In the first admission , a diagnosis of left lower lobe pneumonia (Figure 2) was made and he was successfully treated with non-invasive respiratory support and IV antibiotics.

A month later, he was readmitted with respiratory symptoms and was diagnosed with RSV +ve bronchiolitis (Figure 3). He progressively needed escalated respiratory support with mechanical ventilation and was transferred to a tertiary unit for further management. CXR showed cardiomegaly (Figure 4).

Echocardiography revealed a dilated and poorly contracting left ventricle with LCA arising from pulmonary artery. Following conservative management of heart failure , a successful surgical repair was done

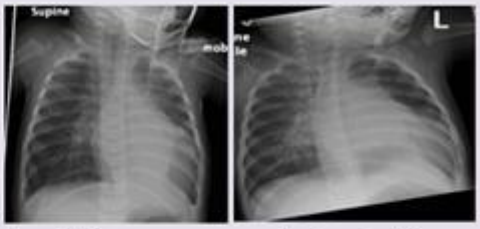

Figure 2 : left lower collapse/consolidation

Figure 3: persistent left lower lobe shadowing

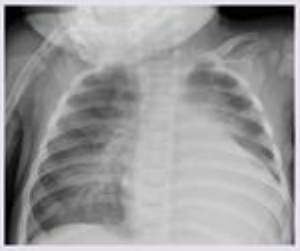
Figure 4: Post intubation CXR with progressive cardiomegaly

Discussion :

This patient presented over a period of seven months with different symptoms which can be related ,retrospectively, to ALCAPA . Ranging from irritability and colicky crying in the early neonatal period to extensive respiratory symptoms in early infancy, symptoms can be explained by the drop in the pulmonary vascular resistance.

Some clinical indicators such as recurrent and severe respiratory symptoms needing escalated respiratory support (in an otherwise healthy infant with RSV bronchiolitis) should prompt a clinical question of potential alternative diagnoses. Left lower lobe collapse or atelectasis with cardiomegaly on CXR should also raise the suspicion of cardiac causes. This is due to compression effect of cardiomegaly on the left bronchial tree . Although ECG remains the gold standard in detecting anterolateral ischemia secondary to ALCAPA, 20 to 45 per cent of patients do not have abnormal Q waves [2] especially if ECG was taken in the early neonatal period. This case represents a typical example.

Conclusion:

Early detection of this anomaly requires a high index of suspicion, particularly if the clinical course isn't following the natural history of the disease. CXR and ECG can be very useful screening tools and Echo remains the main diagnostic test.

References

1. Pachon R, Bravo C, Niemiera M. Anomalous Origin of the Left Coronary Artery from Pulmonary Artery (ALCAPA). J Clin Exp Cardiolog. 2014;5:1000341. doi:10.4172/2155-9880.1000341.
2.Ectrocardiogram of anomalous left coronary artery from the pulmonary artery in infants. Hoffman JI SOPediatr Cardiol. 2013 Mar;34(3):489-91. Epub 2012 Dec 15.

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Title: Neonatologist Performed Echocardiography (NPE) improves diagnostic accuracy and cot side care

Author/s & Institution: Mahmoud Montasser, Anne Marie Heuchan, Lindsey Hunter. Royal Hospital for Children, Glasgow, UK.

Corresponding Authors Name: Mahmoud Montasser

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Abstract:

Introduction:

There is considerable interest in neonatologist performed echocardiography (NPE) to support real time bedside decision making but little outcome-based evidence of benefit.

Aim:

To describe benefits in clinical care from NPE in the neonatal intensive care unit (NICU).

Methods:

From February 2018 till August 2018, in the NICU at the Royal Hospital for Children in Glasgow, X infants had NPE. Indications included: assessment of patent ductus arteriosus (PDA), persistent pulmonary hypertension (PPHN), sock or hypotension, central lines placement, and exclusion of pericardial effusion. Every infant had a full echocardiographic structural assessment.

Results:

We highlighted 4 cases where there was a significant change in clinical management following NPE. 1- NPE for line position in a term infant undergoing therapeutic hypothermia identified unexpected tubular coarctation od the descending aorta with a constricting PDA and poor cardiac function. After urgent cardiology review, Prostaglandin infusion was commenced and surgical repair was undertaken. 2-NPE of a preterm infant (34 weeks) due to increasing oxygen requirement identified structural normality but severe PPHN with continuous right to left PDA flow. Inhaled Nitric Oxide was commenced with immediate clinical and echocardiographic improvement. 3- Assessment of 10-day old preterm infant (29 weeks) with tachycardia and increasing oxygen requirement identified a haemodynamically significant duct and reduced global strain. Diuretics and medical treatment of the PDA, the duct became restrictive with improvement in clinical and cardiac function. 4-Assessment following resuscitation of preterm twin hypovolaemic shock following feto-maternal transfusion. Despite improved haemoglobin, acidosis persisted. NPE showed adequate ventricular filling but impaired function with reduced global strain. Inotropic support was commenced with clinical and biochemical improvement.

Conclusion:

These cases demonstrate the utility of NPE detecting significant structural and functional abnormalities and improving clinical care.

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Title: A rare presentation of cardiac tumour causing critical RVOT obstruction in a newborn

Author/s & Institution: Stratmann, C., Mehdi, S., Snook C., Hayes, A.
Bristol Royal Hospital for Children, Department of Paediatric Cardiology

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Abstract:
Cardiac tumours are a rare finding in children, moreover neonates. This is the first report of a mature teratoma leading to critical RVOT obstruction immediately after birth.

The patient is a boy born at 37+3 weeks by urgent Caesarean section following a growth scan identifying a pericardial effusion and dilated RV. The baby was cyanotic at birth with SpO2 around 80% which soon deteriorated. Pulmonary atresia was suspected so prostin was commenced to preserve ductal patency. Furthermore, inotropic support with dobutamine and adrenaline was required. Postnatal echo demonstrated a considerable mass in the RVOT/MPA causing near complete occlusion. The RV presented dilated and hypertensive with the septum bowing into LV and right to left shunt at atrial level. Ventricular function was significantly reduced. Urgent surgery was performed revealing a non-specific mass originating from the RV, including MPA, PV and VS. Histology subsequently confirmed this was a mature teratoma. The tumour was resected in toto. Postoperatively, considerable RV dysfunction and regurgitant dysplastic pulmonary valve persisted. A low cardiac output state required intermittent ventilation, inotropes and nitric oxide. Within five days the patient was extubated. However, persistent oxygen supplementation is needed to support the still significantly impaired RV function. Currently a 1.5 ventricle repair is being discussed as RV function remains unsatisfactory.

The proposed case aims to illustrate a combination of unusual findings leading to a critical RVOTO scenario. It will include pictures of the acute presentation, surgical findings and provide a brief overview of paediatric cardiac tumours.

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Title: Patent Ductus Arteriosus in preterm babies can be managed conservatively: the need for surgical ligation is questionable

Author/s & Institution: Sian Jenkins, Ankita Jain, Manjunath Shetthalli, Orhan Uzun. University of Wales Hospital, Cardiff

Corresponding Authors Name: Sian Jenkins

Corresponding Authors Email:

Abstract:

Background:

Large patent ductus arteriosus (PDAs) in preterm babies are traditionally associated with higher incidence of IVH, NEC and CLD, and longer duration of ventilation. Surgical management has often been considered to be the only option. In practice, there is wide variation with regards to PDA management, in particular the need for surgical or medical intervention.

Aims:

We compared the clinical outcomes of premature babies with large PDAs managed before 2014 (the era of surgical/medical intervention) versus conservative management, following a change to our guideline in South Wales in 2014. This comprised of early steroid use, diuretics & fluid restriction, and restricted use of Ibuprofen or Paracetamol.

Method:

Retrospective review of all preterm infants admitted to our neonatal unit who had a haemodynamically significant PDA. Using records from departmental databases we analysed data on sex, gestation, birth weight, length of stay, treatment of PDA and incidence of NEC, CLD, IVH & death.

Results:

	Medically treated		**Not medically treated**	
	Pre 2013	**2014-2017**	**Pre 2013**	**2014-2017**
n	88 (44%)	20 (18%)	113 (56%)	89 (82%)
Median gestation	26/40	25/40	27/40	27/40
Median BW (grams)	850	800	1020	955
Surgery/Cath	33 (37.5%)	1 (5%)	21 (18.5%)	2 (2%)
NEC	14 (15.9%)	6 (30%)	20 (17.6%)	25 (29%)
Death	12 (13.6%)	3 (15%)	13 (11.5%)	9 (10%)

Conclusion:

Changes to our guideline, promoting conservative management, resulted in fewer patients being referred for surgery, without affecting mortality or morbidity. Our study raises the question about the need for surgery in the management of preterm PDAs.

Total Word Count (Abstract Body Only): 250

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Please click here to submit your abstract by Friday 7th September.

For any further questions or queries please contact kirsty@cfsevents.co.uk