Congenital cardiac surgery

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Mentorship, Sponsorship, and Leadership for Women in Cardiothoracic Surgery: A Qualitative Analysis

Lun, 06/23/2025 - 10:00

Ann Thorac Surg. 2025 Jun 21:S0003-4975(25)00544-2. doi: 10.1016/j.athoracsur.2025.05.046. Online ahead of print.

ABSTRACT

BACKGROUND: Gender disparities are well described in cardiothoracic surgery (CT). However, qualitative data highlighting women's lived experiences are lacking. We aimed to explore women's experiences with mentorship, sponsorship, and leadership in CT.

METHODS: We conducted virtual semi-structured interviews with surgeons who were women in practice for ≥5 years across the United States from 9/2024 to 12/2024. The interview asked questions pertaining to women's experiences with mentorship, sponsorship, leadership pathways, and leadership roles. Interviews were transcribed, coded, and analyzed using the thematic analysis approach.

RESULTS: Participants (n=25) included thoracic (40%), adult cardiac (36%), and congenital (16%) surgeons with 13 median years in practice. Most (84%) currently practiced in an academic setting. There were six main themes: 1) Losing Mentorship and Never Finding Sponsorship - mentorship wanes after early career and sponsorship often is never found; 2) Looking Elsewhere - women look outside their home institutions for sponsorship; 3) Needing He-for-She - men have an important role to play as sponsors; 4) Breaking Imposter Syndrome with Sponsorship - sponsorship helps overcome leadership imposter syndrome; 5) Circling the Service Drain - an overburden of work without title or compensation impedes leadership attainment; and 6) Being the Boss, but Not Bossy - women face double standards as leaders that may increase the challenges of leadership.

CONCLUSIONS: These findings suggest the need to increase cross-gender sponsorship, create support systems for career development within institutions, provide transparency in pay and promotion structures, and develop leadership training tailored to the unique obstacles women may face in order to combat identified barriers.

PMID:40550316 | DOI:10.1016/j.athoracsur.2025.05.046

Categorías: Cirugía congénitos

Reinterventions and medical costs after tetralogy of Fallot repair: a retrospective cohort study using health insurance claims in Japan

Lun, 06/23/2025 - 10:00

Gen Thorac Cardiovasc Surg. 2025 Jun 23. doi: 10.1007/s11748-025-02174-7. Online ahead of print.

ABSTRACT

BACKGROUND: Reinterventions after congenital heart disease surgery include not only reoperations but also medical catheter interventions, and the details of these treatment realities are often unclear. This study aimed to elucidate the medical and surgical reinterventions and associated medical costs after the tetralogy of Fallot (TOF) repair using Japanese health insurance claims data.

METHODS AND RESULTS: We analyzed reinterventions and medical costs from insurance claims data of patients who underwent TOF repair between 2005 and 2021. Of 174 patients who underwent TOF repair, 23 (13.2%) received a total of 34 reinterventions. These included 23 percutaneous catheter interventions and 11 reoperations. The 5-year reintervention-free rate was 87.5% overall, 94.9% for surgeries with right ventricular outflow tract reconstruction (N = 130), and 65.6% for surgeries with peripheral pulmonary artery plasty (N = 44). The median (interquartile range) medical cost for patients without reintervention was ¥5.33 million (4.62-7.14 million) and the cost for the patients with reintervention was ¥ 10.59 million (7.73-13.97 million).

CONCLUSION: Using Japanese insurance claims data, we analyzed the reoperation and catheter intervention after the TOF repair. The reintervention-free rate after TOF repair differed significantly by surgical procedure with a tendency for poorer postoperative prognosis, particularly in cases involving the peripheral pulmonary artery plasty. These analysis results may contribute to predicting outcomes after TOF repair for healthcare professionals.

PMID:40549276 | DOI:10.1007/s11748-025-02174-7

Categorías: Cirugía congénitos

A Sudden Increase in Intrathoracic Pressure After Fibrin Glue Application During A Pediatric Thoracoscopic Surgery: A Case Report

Lun, 06/23/2025 - 10:00

A A Pract. 2025 Jun 23;19(6):e01983. doi: 10.1213/XAA.0000000000001983. eCollection 2025 Jun 1.

ABSTRACT

This case report describes an infant with congenital esophageal atresia who underwent thoracoscopic surgery and experienced a tension pneumothorax following the application of a fibrin glue product spray, resulting in critical hemodynamic deterioration close to circulatory arrest due to sudden and extreme elevation of intrathoracic pressure. Prompt action and adequate instruction to the surgeon by the clinical engineer in charge to reduce thoracic pressure facilitated a quick recovery from this critical hemodynamic situation. It is essential to understand the structure of the insufflation unit and manage accidental increases in closed cavity pressure during thoracoscopic or laparoscopic surgery.

PMID:40548758 | DOI:10.1213/XAA.0000000000001983

Categorías: Cirugía congénitos

Establishing a robotic aortic valve replacement program in Spain: growing opportunities for Europe

Lun, 06/23/2025 - 10:00

Ann Cardiothorac Surg. 2025 May 31;14(3):218-224. doi: 10.21037/acs-2025-ravr-0003. Epub 2025 May 29.

ABSTRACT

BACKGROUND: The natural history of aortic valve disease commonly eventuates in percutaneous or open surgical treatment. Percutaneous treatment has been expanding its indication from high-risk patients to low- and moderate-risk patients; however, there are certain groups of patients who are not good candidates for percutaneous treatment, such as those with bicuspid valve disease or pure aortic regurgitation patients. Robotic surgery, as an evolution from traditional approaches, has been gradually expanding its indications in cardiac surgery. The use of a lateral approach, common to robotic mitral procedures, may become a valid alternative for several patients undergoing aortic valve procedures. The aim of the present study was to evaluate and discuss the characteristics, challenges and early results of a newly created robotic aortic valve replacement program.

METHODS: This was a retrospective study analysing prospectively collected data of all patients who have undergone robotic aortic valve replacement (RAVR) in Hospital Clínic Barcelona from December 2021 to October 2024.

RESULTS: Since December 2021, 25 consecutive patients have undergone RAVR. Sixty-eight percent of the cohort were males and the median age was 66 years [interquartile range (IQR), 58.5-71.8 years]. Severe aortic stenosis was the predominant lesion in 76% of patients, and degenerative calcification was the aetiology in 52% of patients. Median cardiopulmonary bypass time was 129 minutes (IQR, 113-145.5 minutes) and median ischemic time was 91 minutes (IQR, 78-105 minutes). Three patients required a re-exploration for bleeding, which was performed through the same approach, and one patient suffered an ischemic cerebro-vascular accident (CVA) with complete recovery. Median intensive care unit (ICU) length of stay and hospital length of stay were 1 and 4 days, respectively.

CONCLUSIONS: Our initial experience shows that expanding a robotic program to include RAVR is feasible, safe, and can provide excellent clinical outcomes in selected patients.

PMID:40547431 | PMC:PMC12177757 | DOI:10.21037/acs-2025-ravr-0003

Categorías: Cirugía congénitos

Case Report: Full recovery in severe ParvovirusB19 myocarditis with DCM phenotype: the impact of rASD and PAB

Lun, 06/23/2025 - 10:00

Front Pediatr. 2025 Jun 6;13:1579212. doi: 10.3389/fped.2025.1579212. eCollection 2025.

ABSTRACT

BACKGROUND: The incidence of parvovirus B19 (B19 V)-associated myocarditis progressing to dilated cardiomyopathy (DCM) is on the rise. We hypothesize that a comprehensive treatment regimen enables cardiac regeneration in young patients with life-threatening B19 V myocarditis.

METHODS: Four patients with clinical and imaging evidence of DCM were referred due to suspected myocarditis. An endomyocardial biopsy (EMB) confirmed the diagnosis. The diastolic dysfunction associated with heart failure and reduced left ventricular ejection fraction (HFrEF) was established invasively. Before surgical pulmonary artery banding (PAB), a transcatheter procedure was performed to create a restrictive atrial defect (rASD).

RESULTS: The drug-treated patients (ages 15-26 months) had a mean LV-EF of 22.5% (20%-25%), a left ventricular end-diastolic diameter (LVEDD) of 49 (45-51) mm (Z-score >5), and elevated LVED pressures (>18 mmHg). EMB revealed B19V-associated acute/subacute or chronic active myocarditis with characteristics of DCM. Drug therapy, including immunoglobulins and creating a rASD, resulted in clinical improvement and enhanced right ventricular function. However, LV enlargement and dysfunction persisted. Four weeks after surgical PAB, all patients showed improvement and were

discharged home. The pressure gradient across the PAB ranged from 40 to 45 mmHg, and LVEDD decreased to a mean z-score of +3.5. Within three to six months, LVEDD normalized, and LV-EF increased to a mean of 63% (range: 57%-68%). Clinical and cardiac improvements were sustained over a median follow-up of 7.5 years.

CONCLUSION: A holistic treatment approach allows functional regeneration in B19 V myocarditis with obvious end-stage DCM. Restrictive ASD creation is required before surgical PAB when HFrEF is associated with a diastolic dysfunction component.

PMID:40547134 | PMC:PMC12179178 | DOI:10.3389/fped.2025.1579212

Categorías: Cirugía congénitos

Case Report: Post-surgical Guillain-Barre syndrome as a rare differential diagnosis of flaccid paralysis of the lower extremities in an infant after cardiac surgery

Lun, 06/23/2025 - 10:00

Front Pediatr. 2025 Jun 6;13:1610035. doi: 10.3389/fped.2025.1610035. eCollection 2025.

ABSTRACT

INTRODUCTION: Guillain-Barré syndrome (GBS) is an important cause of flaccid paralysis in children and is mainly associated with antecedent infections. Surgery as an additional trigger for GBS is a well-documented phenomenon in adults, but is significantly less reported in pediatric patients. This case report describes an infant with post-surgical GBS following cardiac surgery, highlighting the diagnostic challenges and differential diagnoses of post-surgical GBS in the pediatric intensive care setting.

CASE DESCRIPTION: A former extremely preterm infant with congenital cytomegalovirus (CMV) infection underwent a second surgery for re-coarctation of the aorta with aortic arch hypoplasia at the chronological age of six months. While requiring extracorporeal membrane oxygenation postoperatively, the girl presented with flaccid paralysis of the lower extremities. Magnetic resonance imaging of the brain, spine, and nerve conduction studies demonstrated findings consistent with acute motor-sensory axonal neuropathy-type GBS. She was treated with intravenous immune globulin and ganciclovir due to CMV reactivation (plasma 14,000 copies/ml). Gradual neurological improvement was noted over the following months, while persistent motor deficits remained, suggesting potential disease transition into chronic inflammatory demyelinating polyneuropathy.

CONCLUSIONS: This case report emphasizes the importance of considering post-surgical GBS in critically ill children with postoperative paralysis. Recognition may be delayed due to variable initial presentations and accompanying factors such as sedation and extracorporeal life support.

PMID:40547133 | PMC:PMC12179211 | DOI:10.3389/fped.2025.1610035

Categorías: Cirugía congénitos

Tracheoesophageal Fistulas Unrelated to Malignancy: A Case Series

Lun, 06/23/2025 - 10:00

Cureus. 2025 May 22;17(5):e84605. doi: 10.7759/cureus.84605. eCollection 2025 May.

ABSTRACT

Tracheoesophageal fistula (TEF) is a rare, pathological connection between the trachea and

esophagus that can be acquired or congenital. Acquired TEF typically occurs due to iatrogenic injuries. There is often a delay in diagnosis due to the rare nature of this condition. These patients have a very high mortality rate, and a multidisciplinary strategy is required for the management of TEF involving specialists from interventional pulmonology, gastroenterology, and thoracic surgery. The clinical features, diagnosis, and management of nine patients with TEF are covered in this article. Eight patients were diagnosed with acquired TEF and one with a recurrence of congenital TEF. Our experience shows that, when patients develop TEF, it is usually a terminal event, and major procedures cannot be tolerated due to multiple comorbidities and ventilator dependency. Thus, these patients are managed with palliative treatment to improve their quality of life. Although surgical intervention is the gold standard for patients with acquired TEF, it is considered feasible in very few cases, so this article focuses primarily on interventional therapy rather than surgery.

PMID:40546474 | PMC:PMC12181819 | DOI:10.7759/cureus.84605

Categorías: Cirugía congénitos

Unveiling the uncommon: Mounier-Kuhn syndrome as a cause of uterine prolapse

Dom, 06/22/2025 - 10:00

BMJ Case Rep. 2025 Jun 22;18(6):e265337. doi: 10.1136/bcr-2025-265337.

ABSTRACT

Congenital tracheobronchomegaly, also known as Mounier-Kuhn syndrome (MKS), is an uncommon illness characterised by dilatation of the major bronchi and recurrent chest infections. Tracheobronchomegaly may also be accompanied by tracheal and bronchial diverticula. We report the case of a middle-aged woman with a complaint of uterine prolapse for which a hysterectomy is planned. The patient complained of recurrent cough with expectoration for the last 6 years; hence, a radiograph of the chest and CT of the thorax were advised. A radiograph of the chest and thoracic CT showed dilation and numerous diverticula of the trachea and bronchi that suggested MKS. Management of MKS in symptomatic patients is supportive but is only used to treat contagious exacerbations with antibiotics and respiratory exercise to clear secretions. Here is an attempt to reach out to the cause of uterine prolapse in this patient with MKS and correlating these two conditions.

PMID:40545290 | DOI:10.1136/bcr-2025-265337

Categorías: Cirugía congénitos

Pediatric Heart Transplant in Donation After Circulatory Death using Normothermic Regional Perfusion

Dom, 06/22/2025 - 10:00

J Thorac Cardiovasc Surg. 2025 Jun 20:S0022-5223(25)00535-5. doi: 10.1016/j.jtcvs.2025.06.015. Online ahead of print.

ABSTRACT

OBJECTIVE: Orthotopic heart transplant is the definitive option for pediatric patients with end-stage heart failure. Unfortunately, the greatest contributor to waitlist mortality has been a shortage of available hearts for transplant. Donation after circulatory death with normothermic regional perfusion may mitigate this supply-demand mismatch.

METHODS: Donation after circulatory death with normothermic regional perfusion recipients were matched to similar donation after brain death recipients. Primary end points included 1-year survival,

and episodes of primary graft dysfunction at 1 year. Secondary end points included treated rejection at 1 year and ventricular systolic and diastolic function on echocardiogram at time of discharge. Elevated filling pressures or decreased cardiac output were also examined via cardiac catheterization data at time of endomyocardial biopsy at 1 year.

RESULTS: Twelve donation after circulatory death procurements were attempted and nine hearts procured. Donor cardiac arrest and cardiac function prior to procurement were similar in both groups. Donation after brain death recipients spent more time on the waitlist. Following transplant, biventricular function was similar in both groups at time of discharge and at 1-year follow-up. There were no differences between groups with regard to primary graft dysfunction or instances of treated rejection at 1 year.

CONCLUSIONS: This study represents the largest single-institution cohort of pediatric recipients of hearts obtained following donation after circulatory death with normothermic regional perfusion compared to demographically similar donation after brain death cardiac transplant recipients. These results are indicative of equivalent outcomes at 1-year, suggesting that donation after circulatory death with normothermic regional perfusion is a viable method to expand the pediatric cardiac donor pool.

PMID:40545233 | DOI:10.1016/j.jtcvs.2025.06.015

Categorías: Cirugía congénitos

Antithrombotic approach in percutaneous pulmonary valve implantation (PPVI): What is our standard of care? A study endorsed by the Association for European Paediatric and Congenital Cardiology

Sáb, 06/21/2025 - 10:00

Arch Cardiovasc Dis. 2025 Jun 12:S1875-2136(25)00325-0. doi: 10.1016/j.acvd.2025.04.056. Online ahead of print.

ABSTRACT

BACKGROUND: Despite the widespread adoption of percutaneous pulmonary valve implantation, there remains a lack of consensus on the optimal management of peri-interventional and long-term antithrombotic therapies because of a lack of evidence.

AIM: To clarify current practices in peri/postprocedural antithrombotic strategies for percutaneous pulmonary valve implantation.

METHODS: An online survey was submitted to the Interventional Working Group of the Association for European Paediatric and Congenital Cardiology, and was completed by 76 congenital interventional cardiologists in 2023-2024.

RESULTS: Overall, 86% had standardized protocols for anticoagulation/antiaggregation. Intraprocedural heparin administration of 100IU/kg was common (83%), and postprocedural strategies mostly included acetylsalicylic acid (aspirin) (45%) or a combination of antiaggregation and anticoagulation (29%). Long-term strategies comprised antiaggregation (88%), no therapy (11%) and anticoagulation only (1%). Acetylsalicylic acid monotherapy was prescribed by 91%, whereas 9% used dual antiaggregation therapy. Dual antiaggregation therapy was continued for suspicious medical history of thrombotic complication or microthrombi for 3-6 months. Testing for acetylsalicylic acid resistance was infrequent (36%), and only if clinically indicated. When patients had pre-established anticoagulation therapy, 59% changed their strategy. Treatment changes based on valve type were rare (8%). The primary reasons for anticoagulation/antiaggregation were to increase valve longevity (26%) and for both longevity and endocarditis prophylaxis (68%). Acute valve thrombosis was reported in 11 cases.

CONCLUSIONS: The survey reveals variability in practices after percutaneous pulmonary valve implantation. Most interventional cardiologists prefer acetylsalicylic acid for postprocedural and long-term management, whereas dual antiaggregation therapy is sometimes used in specific cases. Anticoagulation is limited to pre-existing therapy cases or isolated experiences for 3 months.

PMID:40544108 | DOI:10.1016/j.acvd.2025.04.056

Categorías: Cirugía congénitos

Assessing the Utility of Routine Surveillance Echocardiograms After Arterial Switch Operation in Adults with Transposition of the Great Arteries

Sáb, 06/21/2025 - 10:00

J Am Soc Echocardiogr. 2025 Jun 19:S0894-7317(25)00332-3. doi: 10.1016/j.echo.2025.06.006. Online ahead of print.

ABSTRACT

BACKGROUND: Current guidelines recommend annual or biennial transthoracic echocardiograms for patients with d-transposition of the great arteries (d-TGA) who have undergone an arterial switch operation (ASO), but optimal imaging frequency is unknown. We sought to determine the utility of annual surveillance echocardiograms for asymptomatic patients.

METHODS: Clinical documentation from 2011-2023 for asymptomatic patients > 18 years old with history of d-TGA and ASO at a single large tertiary care center was reviewed to determine if routine surveillance echocardiograms resulted in changes in clinical management (ΔMGMT), categorized as procedures (surgery or catheterization) or noninvasive changes (medication changes, additional imaging, etc.). Echocardiograms obtained for symptoms or completed before age 18 were excluded from analysis. Data was evaluated with chi-square and Kruskal-Wallis tests, Kaplan-Meier analysis, and Cox proportional hazard analysis.

RESULTS: Of 416 echocardiograms from 127 patients, the median time from ASO to final echocardiogram was 22.2 years (IQR 19.1-25.7 years; range 15.2-34.1 years). Eighteen echocardiograms (4.32%) resulted in ΔMGMT for 12 patients including 8 (1.92%) medication changes, 7 (1.68%) cardiac CT or MRI studies, and 1 (0.24%) each for cardiac catheterization and surgery. A significantly larger proportion of patients with ΔMGMT underwent ASO at age >1 year compared to patients without ΔMGMT (36.36% vs 6.14%, P<0.01). Patients with a history of hypertension, arrhythmia, >2 sternotomies, or neo-aortic valve replacement had a significantly greater risk of ΔMGMT, as did those with neo-aortic root dilation >4.5cm and/or moderate or greater neo-aortic insufficiency.

CONCLUSIONS: Routine surveillance echocardiograms are low yield in asymptomatic adults up to 30 years after ASO for d-TGA, suggesting it may be reasonable to increase the time interval between routine echocardiograms without adversely impacting care. Higher risk sub-populations including those with ASO at older ages, >2 sternotomies, neo-aortic valve replacement, and/or neo-aortic valve/root pathology may benefit from continued frequent surveillance.

PMID:40543855 | DOI:10.1016/j.echo.2025.06.006

Categorías: Cirugía congénitos

Gender Disparities in Compensation of Practicing Cardiothoracic Surgeons: Analyzing the Society of Thoracic Surgeons Compensation Survey

Sáb, 06/21/2025 - 10:00

Ann Thorac Surg. 2025 Jun 19:S0003-4975(25)00530-2. doi: 10.1016/j.athoracsur.2025.05.038. Online ahead of print.

ABSTRACT

BACKGROUND: Gender-based pay disparity in compensation is widespread. In cardiothoracic surgery, women earn between 71-84% of men's salaries at comparable ranks. Limited data exist on how factors like subspecialty, practice type, and work efforts contribute to these disparities.

METHODS: The Society of Thoracic Surgeons (STS) conducted the Compensation Survey in 2023 among practicing members with at least a 0.5 full-time equivalent role. Collected data included compensation sources, predominant subspeciality of cardiothoracic surgery, work relative value units (wRVUs) generated, and demographics. Comparisons on gender-based salary across subspecialties, years of experience, and wRVUs were included.

RESULTS: Among 838 respondents, gender disparities were present in both base salary and total compensation across all subspecialties, with women earning 64-93% of men's salaries. Income disparity was greatest in cardiac surgery with 11-20 years of experience, where women earned 63-70% of men's compensation. Similarly, in thoracic surgery, women earned 59-72% of the compensation of men with 21-30 years of experience. Women with 11-20 years of experience earned less than both men and women colleagues with 6-10 years of experience. Women reported more compensation from teaching, while men reported more from call coverage.

CONCLUSIONS: Gender pay disparities exist among cardiothoracic surgeons, even when accounting for experience and productivity. Reasons for these disparities, including parenthood penalty, need to be further studied and corrections proposed.

PMID:40543696 | DOI:10.1016/j.athoracsur.2025.05.038

Categorías: Cirugía congénitos

The Removal of Intravascular Foreign Bodies by Intervention in Pediatrics

Sáb, 06/21/2025 - 10:00

J Endovasc Ther. 2025 Jun 21:15266028251344541. doi: 10.1177/15266028251344541. Online ahead of print.

ABSTRACT

INTRODUCTION: The use of intravascular catheters has become increasingly widespread in children, due to their use in diagnostic procedures (such as coronary, intracardiac, cerebral, and renal angiography, as well as pressure monitoring) and for therapeutic purposes (including angioplasties, valvuloplasties, congenital defect closure, chemotherapy, among other uses). However, they are not free from complications, which may include catheter fracture and migration within the cardiovascular system, potentially leading to vascular or cavity perforation, arrhythmias, and even death.

OBJECTIVE: To define the clinical and hemodynamic characteristics of pediatric patients undergoing catheterization for the retrieval of intravascular foreign bodies.

MATERIALS AND METHODS: A retrospective cohort study of all patients under 18 years of age who underwent endovascular extraction of foreign bodies at a cardiovascular reference center.

RESULTS: A high percentage of successful retrieval of intravascular foreign bodies was noted, with the most frequently retrieved catheter being the chemotherapy catheter, primarily located in the right atrium, between the pulmonary trunk and the right ventricle, and in the brachiocephalic vein. Few secondary complications were observed, occurring in only 2 patients.

CONCLUSION: Endovascular retrieval of foreign bodies is a highly effective procedure, and complications are relatively low in pediatrics, even during the neonatal period and in low-birth-weight cases, making it a preferable alternative to surgical extraction.Clinical ImpactBy documenting favorable outcomes across a diverse group, it encourages clinicians to adopt catheter-based approaches more confidently. The use of tools like snare loops and balloon-tipped guidewires in this population reflects procedural innovation and adaptability. Early, minimally invasive intervention may reduce morbidity and hospital stay. These findings can influence clinical decision-making and protocol development in pediatric cardiovascular care, particularly in centers equipped for interventional procedures.

PMID:40542822 | DOI:10.1177/15266028251344541

Categorías: Cirugía congénitos

Prevalence of and risk factors for postoperative delirium among children after cardiac surgery in a Single-Centre retrospective study

Vie, 06/20/2025 - 10:00

Sci Rep. 2025 Jun 20;15(1):20140. doi: 10.1038/s41598-025-04927-z.

ABSTRACT

Due to the increasing focus on neurodevelopment in children with congenital heart disease (CHD), early predictive markers are crucial for implementing interventions and improving neurodevelopmental outcomes. As postoperative delirium (PD) is known to have a long-term impact on neurocognitive function in adults, studies on the prevalence of and modifiable risk factors for PD offer new perspectives. We conducted a retrospective, single-centre study screening for PD using the Cornell Assessment of Pediatric Delirium (CAPD). We distinguished PD from iatrogenic withdrawal syndrome (IWS) by using the Withdrawal Assessment Tool 1 (WAT-1). A confirmatory, multivariate regression analysis was performed and included various pre-, intra-, and postoperative variables. The screening compliance rate was 95% among the 311 patients. The prevalence of PD was 40.2%, and 46.4% of the patients developed IWS. Infants were at the highest risk for PD (OR 2.9, p = 0.05). Prolonged mechanical ventilation > 100 h (OR 7.4, p = 0.003), infusion therapy with ketamine (OR 3.3, p = 0.009), IWS (mild: OR 7.7, p = < 0.001, severe: OR 17.0, p = < 0.001) and low cardiac output syndrome (LCOS) (OR 3.9, p = 0.02) were significant predictive risk factors for PD. Overall, PD and IWS are highly prevalent in paediatric cardiac intensive care units (pCICUs), especially in infants and children with prolonged ventilation durations who require multiple sedatives. This is one of the most extensive single-centre studies in the pCICU population, and the results revealed that IWS and lactatemia in the context of LCOS are novel predictors of PD.

PMID:40542017 | PMC:PMC12181358 | DOI:10.1038/s41598-025-04927-z

Categorías: Cirugía congénitos

Sacrococcygeal Teratomas in Currarino Syndrome: A Multicenter Review of Tumor Characteristics, Surgical Outcomes, and Recurrence

Vie, 06/20/2025 - 10:00

J Pediatr Surg. 2025 Jun 18:162420. doi: 10.1016/j.jpedsurg.2025.162420. Online ahead of print.

ABSTRACT

BACKGROUND: Currarino syndrome is a rare congenital condition characterized by a triad of anorectal malformation, sacral agenesis, and presacral mass, often a teratoma. Comparative outcomes of sacrococcygeal teratomas (SCTs) in Currarino versus non-syndromic cases are not well

defined.

METHODS: A multicenter retrospective review of pediatric SCT resections from 2010-2020 was conducted across 11 institutions in the Midwest Pediatric Surgery Consortium. Patients were classified based on the presence or absence of Currarino syndrome. Demographic, surgical, pathologic, and long-term outcome data were analyzed. The primary outcome was tumor recurrence.

RESULTS: Of 203 patients, 25 (12.3%) had Currarino syndrome. Currarino patients were more often diagnosed postnatally (80% vs. 25%, p<0.001) and had predominantly Altman type IV tumors (87% vs. 17%, p<0.001). All tumors in the Currarino cohort were mature teratomas, while 27% of non-Currarino tumors were immature and 12% were malignant (p<0.001). Tumors in Currarino patients were significantly smaller in size (median 3.3 cm vs. 8.0 cm, p<0.001). Recurrence rates were low and comparable (4% Currarino vs. 10% non-Currarino, p=0.18). Currarino patients had higher rates of urinary incontinence (44% vs. 28%, p=0.048) and constipation (76% vs. 32%, p<0.001). Kaplan-Meier analysis showed a trend toward improved recurrence-free survival in Currarino patients, though not statistically significant.

CONCLUSIONS: Pediatric patients with Currarino-associated SCTs have excellent long-term outcomes, with low recurrence rates likely attributable to benign tumor histology and high rates of complete resection. These findings suggest that surveillance strategies may be tailored for Currarino patients to reduce unnecessary imaging and long-term follow-up burden.

STUDY DESIGN: Retrospective cohort study Level of Evidence: III.

PMID:40541662 | DOI:10.1016/j.jpedsurg.2025.162420

Categorías: Cirugía congénitos

Massive Aneurysmal Coronary Artery Fistulae Demonstrating the Continued Utility of Surgical Intervention

Vie, 06/20/2025 - 10:00

JACC Case Rep. 2025 Jun 18;30(15):103787. doi: 10.1016/j.jaccas.2025.103787.

ABSTRACT

Coronary artery fistulae (CAF) are rare aberrant connections between coronary arteries and the great vessels, coronary sinus, or cardiac chambers. Although most CAF are asymptomatic, patients with large, hemodynamically significant, or symptomatic fistulae might benefit from closure. Transcatheter occlusion is usually the preferred approach given that it avoids a sternotomy and cardiopulmonary bypass. However, there remain CAF with challenging features such as tortuous anatomy, large aneurysms, and concomitant cardiac disease that benefit from surgical ligation. We present 3 cases of CAF, all of which were treated by surgical ligation because of their hemodynamic and clinical significance, tortuosity, and massively dilated aneurysms. These cases illustrate the heterogeneous presentations of CAF and the varied open approaches to closure: epicardial versus intracardiac closure and with or without ligation of the involved coronary artery and distal revascularization. We present high-resolution 3-dimensional reconstructions of these impressively large fistulae and discuss the need for surgical consideration in similar cases.

PMID:40541346 | DOI:10.1016/j.jaccas.2025.103787

Categorías: Cirugía congénitos

Regional outbreak of parvovirus B19 acute myocarditis in preschool children

Vie, 06/20/2025 - 10:00

Pediatr Investig. 2025 Jan 3;9(2):181-184. doi: 10.1002/ped4.12459. eCollection 2025 Jun.

ABSTRACT

We recently came across an outbreak of parvovirus B19 related acute myocarditis in preschool children in a specific region in northern Greece. The children exhibited serious morbidity and mortality. All children had very poor left ventricular ejection fraction and required inotropic intensive care unit support.

PMID:40539004 | PMC:PMC12175628 | DOI:10.1002/ped4.12459

Categorías: Cirugía congénitos

HeartMate 3 Left Ventricular Assist Device Implantation in a Pediatric Patient With Limb-Girdle Muscular Dystrophy

Vie, 06/20/2025 - 10:00

Ochsner J. 2025 Summer;25(2):116-118. doi: 10.31486/toj.24.0109.

ABSTRACT

BACKGROUND: The development of cardiac complications is common in patients with muscular dystrophy. However, advanced heart failure therapies such as implantation of durable ventricular assist devices and transplant are infrequently used in patients who develop cardiomyopathy, often because of comorbid impairments in mobility and respiratory function.

CASE REPORT: A 16-year-old male with limb-girdle muscular dystrophy type R4 presented with chronic decompensated heart failure. Recent worsening of his respiratory function and mobility were confounded by severe heart failure. In addition to our core advanced heart failure team, multidisciplinary assessment preoperatively included Neurology, Pulmonology, Genetics, and Physical Medicine and Rehabilitation. The patient underwent implantation of a HeartMate 3 left ventricular assist device and had an uneventful postoperative course. After intensive inpatient physical and occupational therapy, he was discharged home on postoperative day 16 with minimal residual heart failure symptoms and plans to continue robust outpatient physical therapy.

CONCLUSION: Patients with muscular dystrophy often have cardiac involvement; however, certain subtypes of muscular dystrophy are associated with an earlier presentation of severe life-limiting cardiomyopathy. Pediatric patients with muscular dystrophy should be considered for advanced heart failure therapies such as implantation of a durable left ventricular assist device at an appropriate center. Carefully selected patients may experience substantial improvements in their quality of life. Given the variable disease progression and life expectancy of patients with subtypes of muscular dystrophy, a thorough assessment by a multidisciplinary team is critical.

PMID:40538608 | PMC:PMC12175756 | DOI:10.31486/toj.24.0109

Categorías: Cirugía congénitos

Awareness, Attitudes, and Perceptions Toward Partial Heart Transplantation

Vie, 06/20/2025 - 10:00

Innovations (Phila). 2025 Jun 19:15569845251337720. doi: 10.1177/15569845251337720. Online ahead of print.

ABSTRACT

OBJECTIVE: Partial heart transplantation (PHT) is a new procedure that delivers growing heart valve implants for children. However, awareness, attitudes, and perceptions of health care professionals regarding PHT remain unexplored.

METHODS: A national survey was conducted among members of the Congenital Heart Surgical Society, pediatric cardiac intensive care unit (ICU) directors, medical students, and organ procurement organization (OPO) representatives. The survey measured their awareness, perceptions, and attitudes toward PHT. Perceptions and attitudes were measured using a 5-point Likert scale. Statistical comparisons in ranked responses between survey questions were calculated using two-way analysis of variance, with multiple comparisons assessed by a Tukey post hoc test.

RESULTS: There were responses from 95 medical students (12.1%), 32 congenital cardiac surgeons (10.26%), 21 pediatric ICU directors (16.8%), and representatives from 8 OPOs (15%). Prior to survey distribution, 20% of students were aware of PHT. In contrast, almost all congenital heart surgeons (96.88%) and pediatric cardiologists (100%) were aware of PHT. Although surgeons and cardiologists understand the concepts of PHT, cardiologists were less likely to recommend and inform their patients about the procedure if they meet the criteria (Likert scale scores of 4.68 vs 3.14, $P = 0.01$ and 4.38 vs 3.69, $P = 0.01$, respectively). Surgeon and cardiologist perceptions regarding the use of PHT for different patient age groups were significantly different ($P < 0.001$).

CONCLUSIONS: Even though PHT is a relatively recent innovation, it is well known among pediatric cardiac surgeons and pediatric intensive care directors.

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Categorías: Cirugía congénitos

Outcomes of heart surgery in neonates with trisomy 13 and 18: a systematic review with metanalysis

Jue, 06/19/2025 - 10:00

Eur J Pediatr. 2025 Jun 20;184(7):430. doi: 10.1007/s00431-025-06274-7.

ABSTRACT

This systematic review and meta-analysis aimed to evaluate the clinical outcomes of cardiac surgery in neonates with trisomy 13 (T13) or trisomy 18 (T18) compared to those managed with palliative care. A literature search was conducted in PubMed® and EMBASE®, following PRISMA guidelines, and included five retrospective cohort studies (1627 patients). Outcomes analyzed included in-hospital mortality, survival at 12 months, length of stay (LOS), hospital discharge rates, and the need for mechanical ventilation. The meta-analysis showed that cardiac surgery significantly reduced the odds of in-hospital mortality (OR 0.12, CI 95% 0.03-0.42, p < 0.01), increased survival at 12 months (OR 19.77, CI 95% 5.12-76.36, p < 0.01), and improved discharge rates (OR 12.53, CI 95% 3.63-43.22, p < 0.01). However, limited data were available on quality of life and mechanical ventilation duration. Conclusion: Despite the positive impact of cardiac surgery on survival and discharge rates, the evidence remains low quality, as the included studies were primarily retrospective cohorts with moderate risk of bias. The findings highlight the importance of involving families in the decision-making process, given their differing perspectives on quality of life. Further high-quality studies, such as randomized controlled trials, are needed to provide stronger evidence on this topic.

PMID:40537699 | DOI:10.1007/s00431-025-06274-7

Categorías: Cirugía congénitos

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