

Stanford



Shiraz Maskatia

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CLINICAL OFFICE (PRIMARY)

- **Pediatric Cardiology**

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CLINICAL FOCUS

- Pediatric Cardiology

ACADEMIC APPOINTMENTS

- Clinical Professor, Pediatrics - Cardiology
- Member, Cardiovascular Institute

PROFESSIONAL EDUCATION

- Fellowship: Texas Children's Hospital Baylor College of Medicine (2012) TX
- Fellowship: Baylor College of Medicine (2011) TX
- Residency: Stanford University Medical Center (2008) CA United States of America
- Medical Education: Pritzker School of Medicine University of Chicago Registrar (2005) IL
- Board Certification: Pediatrics, American Board of Pediatrics (2009)
- Board Certification: Pediatric Cardiology, American Board of Pediatrics (2012)

Publications

PUBLICATIONS

- **Comparative Costs of Management Strategies for Neonates With Symptomatic Tetralogy of Fallot.** *Journal of the American College of Cardiology*
O'Byrne, M. L., Glatz, A. C., Huang, Y. V., Kelleman, M. S., Petit, C. J., Qureshi, A. M., Shahanavaz, S., Nicholson, G. T., Batlivala, S., Meadows, J. J., Zampi, J. D., Law, M. A., Romano, et al
2022; 79 (12): 1170-1180
- **The Impact of Maternal Hyperoxygenation on Myocardial Deformation and Loading Conditions in Fetuses With and Without Left-Heart Hypoplasia.** *Journal of the American Society of Echocardiography : official publication of the American Society of Echocardiography*
Cox, K. L., Morris, S. A., Tacy, T., Long, J., Becker, J., Schoppe Rdc, L., Zhang Rdc, J., Maskatia, S. A.
2022

- **Vivian Thomas, Eileen Saxon and neonatal cardiology.** *Seminars in perinatology*
Maskatia, S. A.
2022: 151589

- **Coarctation of the aorta: Prenatal assessment, postnatal management and neonatal outcomes.** *Seminars in perinatology*
Arya, B., Maskatia, S. A.
2022: 151584

- **mRNA Coronavirus-19 Vaccine-Associated Myopericarditis in Adolescents: A Survey Study.** *The Journal of pediatrics*
Kohli, U., Desai, L., Chowdhury, D., Harahsheh, A. S., Yonts, A. B., Ansong, A., Sabati, A., Nguyen, H. H., Hussain, T., Khan, D., Parra, D. A., Su, J. A., Patel, et al
1800

- **Left Subclavian Artery Isolation with Right Aortic Arch and D-Transposition of the Great Arteries.** *CASE (Philadelphia, Pa.)*
Hansen, K., Dhillon, G., Ma, M., Maskatia, S. A., Su, L., Vasanaawala, S., Punn, R.
1800; 5 (6): 392-398

- **Maternal Hyperoxygenation Testing in Fetuses with Hypoplastic Left-Heart Syndrome: Association with Postnatal Atrial Septal Restriction.** *Fetal diagnosis and therapy*
Mardy, C., Kaplinski, M., Peng, L., Blumenfeld, Y. J., Kwiatkowski, D. M., Tacy, T. A., Maskatia, S. A.
2021: 1-12

- **COVID-19 Vaccination-Associated Myocarditis in Adolescents.** *Pediatrics*
Jain, S. S., Steele, J. M., Fonseca, B., Huang, S., Shah, S., Maskatia, S. A., Buddhe, S., Misra, N., Ramachandran, P., Gaur, L., Eshtehardi, P., Anwar, S., Kaushik, et al
2021

- **Right Ventricular Function and T1-Mapping in Boys With Duchenne Muscular Dystrophy.** *Journal of magnetic resonance imaging : JMIR*
Dual, S. A., Maforo, N. G., McElhinney, D. B., Prosper, A., Wu, H. H., Maskatia, S., Renella, P., Halnon, N., Ennis, D. B.
2021

- **Durability of Pulmonary Valve Replacement with Large Diameter Stented Porcine Bioprostheses.** *Seminars in thoracic and cardiovascular surgery*
Maeda, K., Lui, G. K., Zhang, Y., Maskatia, S. A., Romfh, A., Yarlagaadda, V. V., Hanley, F. L., McElhinney, D. B.
2021

- **The Impact of Maternal Preeclampsia and Hyperglycemia on the Cardiovascular Health of the Offspring: A Systematic Review and Meta-Analysis.** *American journal of perinatology*
Hoodbhoy, Z., Mohammed, N., Nathani, K. R., Sattar, S., Chowdhury, D., Maskatia, S., Tierney, S., Hasan, B., Das, J. K.
2021

- **Postpartum depression in mothers with pregnancies complicated by fetal cardiac anomaly.** *Journal of perinatology : official journal of the California Perinatal Association*
Waldrop, A. R., Sherwin, E. B., Anderson, J. N., Boissiere, J. C., Hintz, S. R., Maskatia, S. A., Girsen, A. I., Blumenfeld, Y. J.
2021

- **Comparison of Management Strategies for Neonates With Symptomatic Tetralogy of Fallot.** *Journal of the American College of Cardiology*
Goldstein, B. H., Petit, C. J., Qureshi, A. M., McCracken, C. E., Kelleman, M. S., Nicholson, G. T., Law, M. A., Meadows, J. J., Zampi, J. D., Shahanavaz, S. n., Mascio, C. E., Chai, P. J., Romano, et al
2021; 77 (8): 1093–1106

- **A Fetal Risk Stratification Pathway for Neonatal Aortic Coarctation Reduces Medical Exposure.** *The Journal of pediatrics*
Maskatia, S. A., Kwiatkowski, D., Bhombal, S., Davis, A. S., McElhinney, D. B., Tacy, T. A., Algaze, C., Blumenfeld, Y., Quirin, A., Punn, R.
2021

- **Pediatric Cardiology Specialist's Opinions Toward the Acceptability of Comfort Care for Congenital Heart Disease.** *Pediatric cardiology*
Swanson, T. M., Patel, A., Baxter, A. J., Morris, S. A., Maskatia, S. A., Lantos, J. D.
2020

- **Direct measurement of atrioventricular valve regurgitant jets using 4D flow cardiovascular magnetic resonance is accurate and reliable for children with congenital heart disease: a retrospective cohort study.** *Journal of cardiovascular magnetic resonance : official journal of the Society for Cardiovascular Magnetic Resonance*
Jacobs, K., Rigdon, J., Chan, F., Cheng, J. Y., Alley, M. T., Vasanawala, S., Maskatia, S. A.
2020; 22 (1): 33
- **4D flow vs. 2D cardiac MRI for the evaluation of pulmonary regurgitation and ventricular volume in repaired tetralogy of Fallot: a retrospective case control study.** *The international journal of cardiovascular imaging*
Jacobs, K. G., Chan, F. P., Cheng, J. Y., Vasanawala, S. S., Maskatia, S. A.
2020
- **Unilateral branch pulmonary artery origin from a solitary arterial trunk with major aortopulmonary collaterals to the contralateral lung: anatomic and developmental considerations.** *Seminars in thoracic and cardiovascular surgery*
Adamson, G. T., Houyel, L. n., McElhinney, D. B., Maskatia, S. A., Ma, M. n., Hanley, F. L., Lopez, L. n.
2020
- **COVID-19 and Kawasaki Disease: Novel Virus and Novel Case.** *Hospital pediatrics*
Jones, V. G., Mills, M. n., Suarez, D. n., Hogan, C. A., Yeh, D. n., Bradley Segal, J. n., Nguyen, E. L., Barsh, G. R., Maskatia, S. n., Mathew, R. n.
2020
- **Postoperative Recovery of Left Ventricular Function following Repair of Large Ventricular Septal Defects in Infants.** *Journal of the American Society of Echocardiography : official publication of the American Society of Echocardiography*
Adamson, G. T., Arunamata, A., Tacy, T. A., Silverman, N. H., Ma, M., Maskatia, S. A., Pun, R.
2019
- **In fetuses with congenital lung masses, decreased ventricular and atrioventricular valve dimensions are associated with lesion size and clinical outcome.** *Prenatal diagnosis*
Mardy, C., Blumenfeld, Y. J., Arunamata, A. A., Girsan, A. I., Sylvester, K. G., Halabi, S., Rubesova, E., Hintz, S. R., Tacy, T. A., Maskatia, S. A.
2019
- **Infundibular sparing versus transinfundibular approach to the repair of tetralogy of Fallot.** *Congenital heart disease*
Olive, M. K., Fraser, C. D., Kutty, S., McKenzie, E. D., Hammel, J. M., Krishnamurthy, R., Dodd, N. A., Maskatia, S. A.
2019; 14 (6): 1149–56
- **Secondary repair of incompetent pulmonary valves after previous surgery or intervention: Patient selection and outcomes.** *The Journal of thoracic and cardiovascular surgery*
Adamson, G. T., McElhinney, D. B., Lui, G., Meadows, A. K., Rigdon, J., Hanley, F. L., Maskatia, S. A.
2019
- **Fetal Echocardiographic Parameters and Surgical Outcomes in Congenital Left-Sided Cardiac Lesions.** *Pediatric cardiology*
Edwards, L. A., Arunamata, A. n., Maskatia, S. A., Quirin, A. n., Bhombal, S. n., Maeda, K. n., Tacy, T. A., Pun, R. n.
2019
- **Human Milk Use in the Preoperative Period Is Associated with a Lower Risk for Necrotizing Enterocolitis in Neonates with Complex Congenital Heart Disease.** *The Journal of pediatrics*
Cognata, A. n., Kataria-Hale, J. n., Griffiths, P. n., Maskatia, S. n., Rios, D. n., O'Donnell, A. n., Roddy, D. J., Mehollin-Ray, A. n., Hagan, J. n., Placencia, J. n., Hair, A. B.
2019
- **Weakly supervised classification of rare aortic valve malformations using unlabeled cardiac MRI sequences** *Nature Communications*
Fries, J. A., Varma, P., Chen, V. S., Xiao, K., Tejada, H., Saha, P., Dunnmon, J., Chubb, H., Maskatia, S., Fiterau, M., Delp, S., Ashley, E., Ré, et al
2019; 10
- **The impact of fetal endoscopic tracheal occlusion in isolated left-sided congenital diaphragmatic hernia on left-sided cardiac dimensions** *PRENATAL DIAGNOSIS*
Dhillon, G. S., Maskatia, S. A., Loar, R. W., Colquitt, J. L., Mehollin-Ray, A. R., Ruano, R., Belfort, M. A., Olutoye, O. O., Kailin, J. A.
2018; 38 (11): 812–20
- **Echocardiographic parameters associated with biventricular circulation and right ventricular growth following right ventricular decompression in patients with pulmonary atresia and intact ventricular septum: Results from a multicenter study.** *Congenital heart disease*
Maskatia, S. A., Petit, C. J., Travers, C. D., Goldberg, D. J., Rogers, L. S., Glatz, A. C., Qureshi, A. M., Goldstein, B. H., Ao, J., Sachdeva, R.

2018

- **Cyanotic congenital heart disease following fertility treatments in the United States from 2011 to 2014** *HEART*
Shamshirsaz, A. A., Bateni, Z. H., Sangi-Haghpeykar, H., Arian, S. E., Erfani, H., Shamshirsaz, A. A., Abuhamad, A., Fox, K. A., Ramin, S. M., Moaddab, A., Maskatia, S. A., Salmanian, B., Lopez, et al
2018; 104 (11): 945–48
- **The effect of maternal hyperoxygenation on fetal myocardial mechanics and hemodynamics in control fetuses and those with left-heart hypoplasia**
Cox, K., Morris, S. A., Becker, J., Tacy, T., Sakarovitch, C., Maskatia, S. A.
MOSBY-ELSEVIER.2018: S266
- **Chronic Maternal Hyperoxygenation and Effect on Cerebral and Placental Vasoregulation and Neurodevelopment in Fetuses with Left Heart Hypoplasia.** *Fetal diagnosis and therapy*
Edwards, L. A., Lara, D. A., Sanz Cortes, M. n., Hunter, J. V., Andreas, S. n., Nguyen, M. J., Schoppe, L. J., Zhang, J. n., Smith, E. M., Maskatia, S. A., Sexson-Tejtel, S. K., Lopez, K. N., Lawrence, et al
2018: 1–13
- **The pediatric echocardiography Boot Camp: Four-year experience and impact on clinical performance** *ECHOCARDIOGRAPHY-A JOURNAL OF CARDIOVASCULAR ULTRASOUND AND ALLIED TECHNIQUES*
Maskatia, S. A., Cabrera, A. G., Morris, S. A., Altman, C. A.
2017; 34 (10): 1486–94
- **Fetal left-sided cardiac structural dimensions in left-sided congenital diaphragmatic hernia - association with severity and impact on postnatal outcomes** *PRENATAL DIAGNOSIS*
Kailin, J. A., Dhillon, G. S., Maskatia, S. A., Cass, D. L., Shamshirsaz, A. A., Mehollin-Ray, A. R., Cassady, C. I., Ayres, N. A., Wang, Y., Belfort, M. A., Olutoye, O. O., Ruano, R.
2017; 37 (5): 502-509
- **Outcomes After Decompression of the Right Ventricle in Infants With Pulmonary Atresia With Intact Ventricular Septum Are Associated With Degree of Tricuspid Regurgitation: Results From the Congenital Catheterization Research Collaborative** *CIRCULATION-CARDIOVASCULAR INTERVENTIONS*
Petit, C. J., Glatz, A. C., Qureshi, A. M., Sachdeva, R., Maskatia, S. A., Justino, H., Goldberg, D. J., Mozumdar, N., Whiteside, W., Rogers, L. S., Nicholson, G. T., McCracken, C., Kelleman, et al
2017; 10 (5)
- **Left ventricular rotational mechanics in early infancy: Normal reference ranges and reproducibility of peak values and time to peak values.** *Early human development*
Maskatia, S. A., Lee, W., Altman, C. A., Ayres, N. A., Feagin, D. K., Pignatelli, R. H.
2017; 104: 39-44
- **Echocardiographic Parameters and Outcomes in Primary Fetal Cardiomyopathy** *JOURNAL OF ULTRASOUND IN MEDICINE*
Ezon, D. S., Ayres, N. A., Altman, C. A., Denfield, S. W., Morris, S. A., Maskatia, S. A.
2016; 35 (9): 1949-1955
- **Pilot study of chronic maternal hyperoxygenation and effect on aortic and mitral valve annular dimensions in fetuses with left heart hypoplasia** *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*
Lara, D. A., Morris, S. A., Maskatia, S. A., Challman, M., Nguyen, M., FEAGIN, D. K., Schoppe, L., Zhang, J., Bhatt, A., Sexson-Tejtel, S. K., Lopez, K. N., Lawrence, E. J., Andreas, et al
2016; 48 (3): 365-372
- **Fetal and Neonatal Diastolic Myocardial Strain Rate: Normal Reference Ranges and Reproducibility in a Prospective, Longitudinal Cohort of Pregnancies** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Maskatia, S. A., Pignatelli, R. H., Ayres, N. A., Altman, C. A., Sangi-Haghpeykar, H., Lee, W.
2016; 29 (7): 663-669
- **Association of Late Gadolinium Enhancement and Degree of Left Ventricular Hypertrophy Assessed on Cardiac Magnetic Resonance Imaging With Ventricular Tachycardia in Children With Hypertrophic Cardiomyopathy** *AMERICAN JOURNAL OF CARDIOLOGY*
Spinner, J. A., Noel, C. V., Denfield, S. W., Krishnamurthy, R., Jeewa, A., Dreyer, W. J., Maskatia, S. A.
2016; 117 (8): 1342-1348

- **Longitudinal Changes and Interobserver Variability of Systolic Myocardial Deformation Values in a Prospective Cohort of Healthy Fetuses across Gestation and after Delivery** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Maskatia, S. A., Pignatelli, R. H., Ayres, N. A., Altman, C. A., Sangi-Haghpeykar, H., Lee, W.
2016; 29 (4): 341-349
- **Complex Surgical Repair of a Flail Tricuspid Valve After Chest Wall Trauma in a Pediatric Patient** *ANNALS OF THORACIC SURGERY*
Loar, R. W., Maskatia, S. A., McLaughlin, E. S., Mott, A. R., Adachi, I., Fraser, C. D.
2016; 101 (3): E65-E67
- **Estimated Combined Cardiac Output Aids in the Assessment of Fetuses with Twin-Twin Transfusion Syndrome** *Echocardiography, In press*
Maskatia, S.
2016
- **Cardiovascular magnetic resonance techniques and findings in children with myocarditis: a multicenter retrospective study** *JOURNAL OF CARDIOVASCULAR MAGNETIC RESONANCE*
Banka, P., Robinson, J. D., Uppu, S. C., Harris, M. A., Hasbani, K., Lai, W. W., Richmond, M. E., Fratz, S., Jain, S., Johnson, T. R., Maskatia, S. A., Lu, J. C., Samyn, et al
2015; 17
- **Older Age at Completion of Fontan Procedure Is Associated with Improved Percentage of Predicted Maximum Oxygen Uptake** *TEXAS HEART INSTITUTE JOURNAL*
Bolin, E. H., Maskatia, S. A., Tate, A. L., Petit, C. J.
2015; 42 (4): 333-340
- **Congenital heart anomaly in newborns with congenital diaphragmatic hernia: a single-center experience** *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*
Ruano, R., Javadian, P., Kailin, J. A., Maskatia, S. A., Shamshirsaz, A. A., Cass, D. L., Zamora, I. J., Sangi-Haghpeykar, H., Lee, T. C., Ayres, N. A., Mehollin-Ray, A., Cassady, C. I., Fernandes, et al
2015; 45 (6): 683-688
- **Echocardiographic Parameters of Right Ventricular Diastolic Function in Repaired Tetralogy of Fallot Are Associated with Important Findings on Magnetic Resonance Imaging** *CONGENITAL HEART DISEASE*
Maskatia, S. A., Morris, S. A., Spinner, J. A., Krishnamurthy, R., Altman, C. A.
2015; 10 (3): E113-E122
- **Clinical validation of free breathing respiratory triggered retrospectively cardiac gated cine balanced steady-state free precession cardiovascular magnetic resonance in sedated children** *JOURNAL OF CARDIOVASCULAR MAGNETIC RESONANCE*
Krishnamurthy, R., Pednekar, A., Atweh, L. A., Vogelius, E., Chu, Z. D., Zhang, W., Maskatia, S., Masand, P., Morris, S. A., Krishnamurthy, R., Muthupillai, R.
2015; 17
- **Marked Septal Dyskinesia From Wolff-Parkinson-White Syndrome** *CIRCULATION*
Niu, M. C., Maskatia, S. A., Kim, J. J.
2014; 130 (23): E196-E198
- **Surgical management of tetralogy of fallot: in defense of the infundibulum.** *Seminars in thoracic and cardiovascular surgery*
McKenzie, E. D., Maskatia, S. A., Mery, C.
2013; 25 (3): 206-212
- **Repeat Balloon Aortic Valvuloplasty Effectively Delays Surgical Intervention in Children With Recurrent Aortic Stenosis** *CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS*
Petit, C. J., Maskatia, S. A., Justino, H., Mattamal, R. J., Crystal, M. A., Ing, F. F.
2013; 82 (4): 549-555
- **The Echocardiography "Boot Camp": A Novel Approach in Pediatric Cardiovascular Imaging Education** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Maskatia, S. A., Altman, C. A., Morris, S. A., Cabrera, A. G.
2013; 26 (10): 1187-1192
- **Impact of Obesity on Ventricular Size and Function in Children, Adolescents and Adults With Tetralogy of Fallot After Initial Repair** *AMERICAN JOURNAL OF CARDIOLOGY*

- Maskatia, S. A., Spinner, J. A., Nutting, A. C., Slesnick, T. C., Krishnamurthy, R., Morris, S. A.
2013; 112 (4): 594-598
- **Effect of Branch Pulmonary Artery Stenosis on Right Ventricular Volume Overload in Patients With Tetralogy of Fallot After Initial Surgical Repair** *AMERICAN JOURNAL OF CARDIOLOGY*
Maskatia, S. A., Spinner, J. A., Morris, S. A., Petit, C. J., Krishnamurthy, R., Nutting, A. C.
2013; 111 (9): 1355-1360
 - **Aortic valve morphology is associated with outcomes following balloon valvuloplasty for congenital aortic stenosis** *CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS*
Maskatia, S. A., Justino, H., Ing, F. F., Crystal, M. A., Mattamal, R. J., Petit, C. J.
2013; 81 (1): 90-95
 - **Morphologic Heterogeneity in Left Ventricular Noncompaction Resulting in Accessory Left Ventricular Chambers** *CIRCULATION-HEART FAILURE*
Ezon, D., Maskatia, S., Jeewa, A., Denfield, S.
2012; 5 (6): E94-E95
 - **Pulmonary reperfusion injury after the unifocalization procedure for tetralogy of Fallot, pulmonary atresia, and major aortopulmonary collateral arteries** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Maskatia, S. A., Feinstein, J. A., Newman, B., Hanley, F. L., Roth, S. J.
2012; 144 (1): 184-189
 - **Type B Interrupted Left Aortic Arch with Isolated Right Subclavian Artery** *CONGENITAL HEART DISEASE*
Knudson, J. D., Lopez, K. N., Maskatia, S., McKenzie, E. D., Lantin-Hermoso, M. R., Masand, P. M., Vick, G. W.
2012; 7 (3): E25-E30
 - **Hypertrophic Cardiomyopathy: Infants, Children, and Adolescents** *CONGENITAL HEART DISEASE*
Maskatia, S. A.
2012; 7 (1): 84-92
 - **Restrictive Physiology is Associated With Poor Outcomes in Children With Hypertrophic Cardiomyopathy** *PEDIATRIC CARDIOLOGY*
Maskatia, S. A., Decker, J. A., Spinner, J. A., Kim, J. J., Price, J. F., Jefferies, J. L., Dreyer, W. J., Smith, E. O., Rossano, J. W., Denfield, S. W.
2012; 33 (1): 141-149
 - **Twenty-Five Year Experience With Balloon Aortic Valvuloplasty for Congenital Aortic Stenosis** *AMERICAN JOURNAL OF CARDIOLOGY*
Maskatia, S. A., Ing, F. F., Justino, H., Crystal, M. A., Mullins, C. E., Mattamal, R. J., Smith, E. O., Petit, C. J.
2011; 108 (7): 1024-1028
 - **Congenital Anomalies of the Mitral Valve** *CONGENITAL HEART DISEASE*
Maskatia, S. A.
2011; 6 (1): 77-82