

CURRICULUM VITAE

PART I: General Information

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Name: Gerald Ross Marx

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Harvard School of Medicine
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Place of Birth: New York, New York

Education:

1972 B.A. Ohio Wesleyan University

1976 M.D. University of California at Los Angeles

Postdoctoral Training:

1976-1977 Intern in Medicine, Children's Hospital Medical Center, Boston, MA

1977-1979 Junior and Senior Resident in Medicine
Children's Hospital Medical Center, Boston, MA

1979-1982 Fellow in Cardiology
Children's Hospital Medical Center, Boston, MA

Licensure and Certification:

1976 National Board of Medical Examiners

1982 American Board of Pediatrics

1982 Oregon License Registration 13342

1983 Sub-board of Pediatric Cardiology

2002 Arizona License Registration 14213

2002 Massachusetts Registration 60399

Academic Appointments:

1982-1983	Assistant Professor of Pediatrics (Cardiology) University of Oregon Health Sciences Center, Portland, OR
1983-1987	Assistant Professor of Pediatrics (Cardiology), University of Arizona Health Sciences Center, Tucson, AZ
1987-1988	Associate Professor of Pediatrics (Cardiology), University of Arizona Health Sciences Center, Tucson, AZ
1988-1997	Associate Professor of Pediatrics (Cardiology), Tufts University School of Medicine, New England Medical Center, Boston, MA
1992-1997	Associate Professor of Obstetrics and Gynecology, Tufts University School of Medicine, New England Medical Center, Boston, MA
1996-1997	Consulting Cardiologist, Massachusetts General Hospital, Boston, MA
1998-Present	Associate Professor of Pediatrics (Cardiology), Harvard Medical School, Boston, MA

Hospital or Affiliated Institution Appointments:

1987-1988	Director, Pediatric Intensive Care Unit, University of Arizona Health Sciences Center, Tucson, AZ
1988-1997	Director, Pediatric Cardiology Non-Invasive Laboratory, New England Medical Center, Boston, MA
1991-1993	Team Leader, Continuous Improvement, New England Medical Center, Boston, MA
1991-1994	Co-Chairman, Admissions and Discharge Continuous Improvement Team, Boston Floating Hospital, New England Medical Center, Boston, MA
1995-1997	Associate Chief, Division Pediatric Cardiology, Tufts University School of Medicine, New England Medical Center, Boston, MA
1998-Present	Senior Associate Department of Cardiology, Boston Childrens Hospital, Boston, MA
1998-Present	Director of Ultrasound Imaging Research, Department of Cardiology, Boston Childrens Hospital, Boston, MA

Hospital and Health Care Organization Clinical Responsibilities

- 1982-1983 University of Oregon: Attending Physician, Cardiology Service (Cardiology Ward, Consult Service, Clinic, Intensive Care Unit), Satellite Clinics in Eugene and Medford, Oregon)
performed cardiac catheterizations (150)
performed Doppler echocardiograms (500)
- 1983-1988 University of Arizona: Attending Physician, Cardiology Service (Cardiology Ward, Consult Service, Cardiology Intensive Care Unit), Clinic, Satellite Clinics in Yuma, Fort Huachuca, and Nogales, Arizona, provided cardiology services on Hopi and Navajo Indian Reservations
performed cardiac catheterizations (150/yr)
performed Doppler echocardiograms (1000/yr)
Attending physician general pediatric ward
Attending physician general pediatric intensive care unit
- 1988-1997 Boston Floating Hospital: Attending Physician, Cardiology Service (Cardiology Ward, Consult Service, Cardiology Intensive Care Unit, Clinic, Satellite Clinic in Fall River, MA)
performed cardiac catheterizations (150/yr)
performed Doppler echocardiograms (1000/yr)

Major Administrative Responsibilities:

- 1983-1988 Conference Coordinator, Pediatric Cardiology/Cardiothoracic Surgery Conference, University of Arizona Health Sciences Center
- 1985-1988 Conference Coordinator, Pediatrics Morbidity and Mortality Conference, University of Arizona Health Sciences Center
- 1987-1988 Director, Pediatric Intensive Care Unit, University of Arizona Health Sciences Center
- 1988-1997 Director, Pediatric Cardiology Non-Invasive Laboratory, New England Medical Center, Boston Floating Hospital
- 1988-1990, 1997 Conference Coordinator, Pediatric Morbidity and Mortality Conference, Tufts University School of Medicine/New England Medical Center, Boston, MA
- 1988-1991 Conference Coordinator, Pediatric Cardiology/Cardiothoracic Surgery Conference, Tufts University School of Medicine/New England Medical Center, Boston, MA
- 1991-1993 Team Leader, Continuous Improvement, New England Medical Center, Boston, MA
- 1991-1994 Co-Chairman, Admissions and Discharge Continuous Improvement Team, Boston Floating Hospital, New England Medical Center, Boston, MA
- 1992-1995 Clinical Care Advisory Committee, New England Medical Center, Boston, MA

1993-1995 Task Force on Research and Development, Tufts University School of Medicine/New England Medical Center, Boston, MA

1995-1997 Associate Chief, Division Pediatric Cardiology, Tufts University School of Medicine, New England Medical Center, Boston, MA

1998-present Director Ultrasound Imaging Research, Boston Childrens Hospital, Boston, MA

1998-present Cardiology Rapid Response team
2003 Advisor: Cardiology Fellowship Program Alejandro Ithuralde M.D.
2005-6 Research Advisor: Dr. Martin Hoch Grant from German Heart Society
2005-6 Medical Director Department of Cardiology Digital Imaging Transfer Network Committee
2006 Chairperson: Committee Safety Standards Transesophageal Echocardiography
2006 Director Non-Invasive Imaging Research Seminar
2007 Advisor: Clinical 3-D Echocardiography Munish Tomar, New Delhi India
2007 Board of Directors: Boston Children's Heart Foundation

Major Committee Assignments:

Hospital/Medical School:

1982-1983 Hospital Intensive Care Committee, Oregon Health Sciences University

1984-1988 Pediatrics Intensive Care Committee, (Chairman), University of Arizona Health Sciences Center

1984-1988 Pediatric Research Committee (Chairman 1987-1988), University of Arizona Health Sciences Center

1985-1988 Quality Assurance Committee, Department of Pediatrics, University of Arizona Health Sciences Center, Tucson, AZ

1985-1988 Hospital Quality Assurance Committee, University of Arizona Health Sciences Center

1985-1988 Pediatrics Education Committee, University of Arizona Health Sciences Center

1987-1988 Hospital Utilization Management Committee, University of Arizona Health Sciences Center, Tucson, AZ

1987-1988 Hospital Intensive Care Committee, University of Arizona Health Sciences Center, Tucson, AZ

1987-1988 Search Committee for Chief of Neonatology, University of Arizona Health Sciences Center, Tucson, AZ

1987-1988 Long Range Planning Subcommittee, Department of Pediatrics, University of Arizona Health Sciences Center, Tucson, AZ

1988-1989	Student Education Committee, Boston Floating Hospital, New England Medical Center, Boston, MA
1988-1997	Pediatric Quality Assurance Committee, Boston Floating Hospital, New England Medical Center, Boston, MA
1990-1993	Pediatric Admissions Committee, Boston Floating Hospital, New England Medical Center, Boston, MA
1993-1997	PICU Multidisciplinary Committee, Boston Floating Hospital, New England Medical Center, Boston, MA
1995-1997	Advisory Committee to Clinical Research Office, Tufts University School of Medicine/New England Medical Center, Boston, MA
1997	Search Committee for Chief of Pediatric Critical Care, Tufts-New England Medical Center, Boston, MA
1998-Present	Satellite Clinics Organization Committee, Dept of Cardiology, Boston Childrens Hospital, Boston, MA
2002-Present	CVP Resuscitation Review Committee, Boston Childrens Hospital

National

1985-1986	American Academy of Pediatrics: Subsection of Cardiology; Task Force on Use and Misuse of Echocardiography
1985-1989	Society of Pediatric Echocardiography: <u>Treasurer</u>
1988-1991	Society of Pediatric Echocardiography: <u>Vice President</u>
1993-1994	American College of Cardiology: Committee on Echocardiography
1991-1993	Society of Pediatric Echocardiography: <u>President</u>
1991-1995	American Society of Echocardiography: <u>Board of Directors</u>
1992-1995	American Heart Association, Council Cardiovascular Disease of the Young Committee on Atherosclerosis and Hypertension in Childhood
1993-1995	American Society of Echocardiography; Council of Pediatric Echocardiography, <u>Chairman</u>
1993-1995	American Society of Echocardiography: Scientific Program Committee
1993-1995	American Society of Echocardiography Annual Scientific Sessions, <u>Program Chairman</u> Pediatric Sessions
1994-1995	American Society of Echocardiography: Legislature and Regulatory Committee American Academy Pediatrics, Subsection of Pediatric Cardiology; Program Committee <u>Co-Chairman</u>

1996-1999 American Heart Association: Council Cardiovascular Disease in the Young:
Executive Council

1998-Present American Society of Echocardiography: Outcomes Research Committee

1998-Present International Academy of Cardiology: Scientific Advisory Board

1988-Present International Society of Heart Failure: Scientific Advisory Board

1998 American Heart Association: Heart Ball Committee, Boston, MA

1998 Society of Pediatric Cardiology: Nominating Committee

1998 International Visiting Lecture, School of Pediatric Cardiology Medical
School, University of Indonesia, Jakarta

1999- Society of Pediatric Echocardiography: Program Committee

1999-2000 American Heart Association: Heart Ball 2000 Committee, Boston, MA
American Society of Echocardiography Speakers Bureau

1999-2001 Board of Directors, New England Affiliate Boston Division of the American
Heart Association, Boston, MA

1999-2002 American Heart Association Council of Cardiovascular Disease in the
Young: Program Committee

2000- American Heart Association Corporate Relations Committee, Boston, MA

2000-2001 American Heart Association Heart Ball Committee 2001, Boston, MA

2001 American Society of Echocardiography 2001 Outcomes Research Proposal
Grader

2001 American Heart Association Affiliate Stroke Committee, Boston, MA

2001 Committee Member 2001 Stroke Awareness Awards Luncheon, Boston,
MA - Greater Boston Area American Heart Associate Affiliate

2001 Board of Directors: Intersocietal Commission for the Accreditation of
Echocardiographic Laboratories, Columbia, MD

2002 American Heart Association Heart Ball Committee 2002, Boston, MA

2002 President Elect: American Heart Association Greater Boston Division

2002-2003 AHA Boston Heart Ball Committee Member

2003-2005 President: American Heart Association Greater Boston Division

2003-2004 Co-Chair American Heart Ball Committee 2004, Boston Ma.

2003-2005 Chairman Nominations and Awards Committee American Heart
Association Greater Boston Division

2005-2007 Nominations and Awards Committee American Heart Association Greater
Boston Division

2005-2007 American Heart Association North East Affiliate: Health

2006
2006-2009

Initiatives/Advocacy/Communications Committee
American Heart Association Heart Ball 2006 Sponsorship Committee
American Heart Association North East Affiliate Board of Directors

Professional Memberships:

1983-1988	American Heart Association, Southern Arizona Division, <u>Board of Directors</u>
1988-Present	American Heart Association, Massachusetts Division
1983-Present	American Heart Association, Council of Cardiovascular Diseases of the Young: <u>Executive Council</u>
1983-Present	American Society of Echocardiography: <u>Board of Directors</u> , <u>Chairperson Committee Pediatric Echocardiography</u>
1988-Present	American Institute Ultrasound in Medicine
1982-Present	American College of Cardiology – Fellow
1982-Present	American Academy of Pediatrics – Fellow
1982-1986	Society of Pediatric Echocardiography: <u>Treasurer, Vice-President, President</u>
1987-Present	Society for Pediatric Research
1997-Present	Association of European Pediatric Cardiology
1997-Present 2003-	International Academy of Cardiology: <u>Advisory Board</u> Fellow American Society of Echocardiography

Mentorship:

1. Richard Cardon M.D. 1997-1999
2. Martin Hoch M.D. Germany Heart Association Research Grant 2005-2006
3. Munish Tumor M.D. January 2007 Escots Hospital New Delhi India

Advisory Boards, Consultant:

Acuson, Mountain View, CA
Hewlett-Packard, Andover, MA
Hitachi Corporation of America, Tarrytown, NY
Nitinol Technologies, Boston, MA
TomTec, Incorporated, Boulder, CO
VingMed Corporation, Trondheim, Norway
VMI Technologies, Ottawa, Ontario
International Academy of Cardiology, Washington, DC
Circulatory System Devices Panel Meeting, National Institute of Health, and Gaithersburg, MD
Scientific Advisory Boards of the International Society of Heart Failure

Board of Directors:

PXE (Pseudoxanthoma-Elasticum) International, Inc., Sharon, MA
Inter-Societal Commission for the Accreditation of Echocardiographic Laboratories, Columbia, MD
Advisory Board Development of Three-Dimensional Echocardiography, Philips Medical Systems, Andover Ma.

Editorial Board:

Eastern Europe Journal of Cardiology
Indonesia Journal of Pediatric Cardiology
Pediatric Cardiology News

Reviewer for Critically Reviewed Journals:

American Heart Journal
American Journal of Cardiology
American Journal of Diseases of Children
Catheterization and Cardiovascular Interventions
Chest
Circulation
Echocardiography
International Journal of Cardiology
Journal of Clinical Ultrasound
Journal of the American College of Cardiology
Journal of the American Society of Echocardiography
Journal of Pediatrics
Journal of Thoracic and Cardiovascular Surgery
Mayo Clinic Proceedings
Pediatrics
Pediatric Research
The New England Journal of Medicine

Abstract Review:

American Heart Association Scientific Sessions
American Society of Echocardiography Scientific Sessions
American College of Cardiology, Scientific Sessions
International Academy of Cardiology, Scientific Sessions
Asia Pacific Scientific Forum 2002 "The Genomics Revolution: Bench to Bedside to Community."

Book Review:

Echocardiography

Grant Review:

1982 –1987 NIH:Food and Drug Administration Office of Organ Product Development 1982 –87
1982- 1987 NIH:Food and Drug Administration Office of Organ Drug Grants 1982-87

Honors:

1972	B.A. <i>Summa Cum Laude</i>
1976	Phi Beta Kappa
1976	Omicron Delta Kappa
1987	Society of Pediatric Research
1993	Teacher of the Month Award, Department of Pediatrics, New England Medical Center, Boston, MA
1997	Listed, Best Doctors in Boston, Boston Magazine
1998-2006	Listed, Best Doctors in America
2003	Who's Who in America

BIBLIOGRAPHY

Original Articles

1. Sumaya CV, Marx GR, Ullis K: Genital infections with herpes simplex virus in a university student population. *Sex Transm Dis* 1980; 16:20
2. VanPraagh RV, Leidenfrost RV, Lee Sung Kyu, Marx GR, Wright GB, VanPraagh S: The morphologic method applied to the problem of "single right ventricle". *Am J Cardiol* 1982; 50:929-931
3. Marx GR, Hougen TJ, Norwood WI, Fyler DC, Castenada AR, Nadas AS: Transposition of the great arteries with intact ventricular septum: Results of Mustard and Senning operations in 123 consecutive patients. *J Am Coll Cardiol* 1983; 1:476-83
4. Penkoske PA, Westerman RG, Marx GR, Rabinovitch M, Freed MD, Norwood WI, Castenada AR: Transposition of the great arteries and ventricular septal defect: Results with the Senning operation and VSD closure in infants. *Ann Thorac Surg* 1983; 36:281-87
5. *DeLeon VH, Hougen TJ, Norwood WI, Lang P, Marx GR, Castenada AR: Results of the Senning operation for transposition of great arteries, intact ventricular septum in neonates. *Circulation* 1984; 70 (1):1-21
6. Marx GR, Bierman F, Matthews E, Williams R: Two-dimensional echocardiographic diagnosis of intracardiac masses in infants less than two years of age. *J Am Coll Cardiol* 1984; 3:827
7. Marx GR, Allen HD, Goldberg SJ, Flinn CJ: Transatrial septal velocity measurement by Doppler echocardiography in atrial septal defect - correlation with QP-QS ratio. *Am J Cardiol* 1985; 55:1162
8. Marx GR, Allen HD, Goldberg SJ: Doppler estimation of systolic pulmonary artery pressure in patients with aortic-pulmonary shunts. *J Am Coll Cardiol* 1985; 6:1132
9. Marx GR, Allen HD, Goldberg SJ: Doppler echocardiographic estimation of systolic pulmonary artery pressure in pediatric patients with interventricular communications. *J Am Coll Cardiol* 1986; 7:880-5
10. Goldberg SJ, *Vasko SD, Allen HD, Marx GR: Can the technique for Doppler estimate of pulmonary stenosis be simplified? *Am Heart J* 1986; 111:709-713
11. *Schwartz ML, Goldberg SJ, *Wilson N, Allen HD, Marx GR: Relationship of the Still's murmur, small aortic diameter, and high aortic velocity. *Am J Cardiol* 1986; 57:1344-1348
12. Allen HD, Marx GR, Ovitt TW, Goldberg SJ: Balloon dilation angioplasty for coarctation of the aorta. *Am J Cardiol* 1986; 57:731-6
13. Marx GR, Goldberg SJ, Allen HD: Two methods for measurement of ascending aortic diameter by 2-D echocardiography as compared with cineangiography. *Am Heart J* 1986; 112:172-3

14. Marx GR, Allen HD: Accuracy and pitfalls of Doppler evaluation of pressure gradient in aortic coarctation. *J Am Coll Cardiol* 1986; 7:1379-85
15. *Loeber CP, Goldberg SJ, Marx GR, *Carrier M, Emery RW: How much does aortic and pulmonary artery area vary during the cardiac cycle? *Am Heart J* 1987; 113:95-100
16. *Wilson N, Goldberg SJ, Allen HD, Marx GR, *Loeber CP: Does transducer selection affect aortic arch velocities? *Am Heart J* 1987; 113:878-885
17. *Wilson N, Reed K, Allen HD, Marx GR, Goldberg SJ: Doppler echocardiographic observations of pulmonary and transvalvular velocity changes after birth and during the early neonatal period. *Am Heart J* 1987; 113:750-758
18. *Cohen CR, Allen HD, Spain J, Marx GR, Wolfe RW: How do cardiac structure and function of elite high school wrestlers differ from those of nonathletes? *Am J Dis Child* 1987; 141:576-581
19. Reed KL, Sahn DJ, Marx GR, Anderson CF, Shenker L: Cardiac Doppler flows during fetal arrhythmias: Physiologic consequences. *Obstet Gynecol* 1987; 70:1-6
20. Marx GR, *Hicks R, Allen HD: Measurement of cardiac output and exercise factor by pulsed Doppler echocardiography during supine bicycle ergometry in normal young adolescent boys. *J Am Coll Cardiol* 1987;10:430-434
21. *Hegesh JT, Marx GR, Allen HD: Development of a subaortic membrane after surgical closure of a membranous ventricular septal defect. *Am Heart J* 1987; 114:899-902
22. Shenker L, Reed KL, Anderson CF, Marx GR, Sobonya RE, Graham AR: Congenital heart block and cardiac anomalies in the absence of maternal connective tissue disease. *Am J Obstet Gynecol* 1987; 157:248-253
23. Marx GR, *Hicks RW, Allen HD, Goldberg SJ: Non-invasive assessment of hemodynamic responses to exercise in pulmonary regurgitation. *Am J Cardiol* 1988; 61:595-601
24. Shenker L, Reed K, Marx GR, Donnerstein R, Allen HD, Anderson CF: Fetal cardiac Doppler flow studies in the prenatal diagnosis of heart disease. *Am J Obstet Gynecol* 1988; 158:1267-1273
25. Allen HD, Goldberg SJ, Marx GR: Doppler puts pressure on our hemodynamic thinking. *Am Heart J* 1988; 115:1145-1148
26. Donnerstein RL, Marx GR: Simplified method for estimation of Doppler cardiac output in great vessels. *Am J Cardiol* 1988; 62:155-156
27. Marx GR, Allen HD, Ovitt TW, Hanson W: Balloon dilation angioplasty of Blalock-Taussig shunts. *Am J Cardiol* 1988; 62:824-827
28. *Alter DN, Reed KL, Marx GR, Anderson CF, Shenker L: Prenatal diagnosis of congestive heart failure in a fetus with a sacrococcygeal teratoma. *Obstet Gynecol* 1988; 71:971-981
29. Allen HD, Marx GR, Ovitt TW: A simplified method for catheter entry into the pulmonary artery in patients with congenital heart disease. *Am J Cardiol* 1988; 116:1624-1627

30. Meissner C, Marx G, Geggel R, Fulton D: A retrospective comparison of two intravenous immune globulin products for single-dose treatment of Kawasaki disease. In Takahashi M and Taubert K (eds): Proceedings of the Fourth International Symposium on Kawasaki Disease, American Heart Association, Wailea, HI, 477-8, 1991
31. Fyfe DA, Ritter SB, Snider AR, Silverman NH, Stevenson JG, Sorenson G, Ensing G, Ludomirsky A, Sahn DJ, Murphy D, Hagler D, Marx GR: Guidelines for transesophageal echocardiography in children. *J Am Soc Echocardiogr* 1992; 5(6):640-4
32. Schwartz SL, Gillam LD, Weintraub AR, Sanzobrin BW, Hirst JA, Hsu TL, Fisher JP, Marx GR, Fulton D, McKay RG, Pandian NG: Intracardiac echocardiography in humans using a small sized (6 French), low frequency (12.5 MHz) ultrasound catheter. Methods, imaging planes and clinical experience. *J Am Coll Cardiol* 1993; 21 (1):189-98
33. Warner KG, Anderson JE, Fulton DR, Payne DD, Geggel RL, Marx GR: Restoration of the pulmonary valve reduces right ventricular volume overload after previous repair of tetralogy of Fallot. *Circulation* November 1993; 88(5)(part 2):189-97
34. Meissner HC, Fulton DR, Groothuis JR, Geggel RL, Marx GR, Hemming VG, Hougen T, Snyman DR: Controlled trial to evaluate protection of high-risk infants against respiratory syncytial virus disease by using standard intravenous immune globulin. *Antimicrob Agents Chemother* 1993; 37(8):1655-8
35. Rhodes J, Udelson J, Marx GR, Schmidt CH, Konstam MA, Hijazi ZM, Bova SA, Fulton DR: A new noninvasive method for the estimation of peak dP/dt. *Circulation* 1993; 88(6):2693-99
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37. Groothuis JR, Simoes EAF, Levin MJ, et al, Respiratory Syncytial Virus Immune Globulin Study Group. Prophylactic administration of respiratory syncytial virus immune globulin to high-risk infants and young children. *N Engl J Med* November 18, 1993; 329(21):1524-30
38. Washington RL, Bricker JT, Deckelbaum RJ, Gidding SS, Isabel-Jones J, Kavey RW, Marx GR, Strong WB, Teske D, Wilmore JH, Winston M: Guidelines for exercise testing in the pediatric age group. *Circulation*, 1994; 90(4):2166-2179
39. Fulton DR, Marx GR, Pandian NG, Romero BA, Mumm B, Krauss M, Wollschläger H, Ludomirsky A, Cao QL: Dynamic three-dimensional echocardiographic imaging of congenital heart defects in infants and children by computer-controlled tomographic parallel slicing using a single integrated ultrasound instrument. *Echocardiography* 1994; 11(2):155-64
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43. *Gentles TL, Keane JF, Jonas RA, Marx GR, Mayer JE: Surgical alternatives to the Fontan procedure incorporating a hypoplastic right ventricle. *Circulation*, 1994; 90(5)(part 2):II/1-6
44. Hijazi ZM, Geggel RL, Aronovitz MJ, Marx GR, Rhodes J, Fulton DR: A new low profile balloon atrial septostomy catheter: Initial animal and clinical experience. *J Invasive Cardiol* 1994; 6:209-12
45. Ludomirsky A, Vermillion R, Nesser J, Marx G, Vogel M, Deman R, Pandian N. Transthoracic real time three-dimensional echocardiography using the rotational scanning approach for data acquisition. *Echocardiography* 1994; 11(6):599-606
46. *Delabays A, Pandian NG, Cao QL, Sugeng L, Marx G, Ludomirsky A, Schwartz SL: Transthoracic real-time three-dimensional echocardiography using a fan-like scanning approach for data acquisition. Methods, strengths, problems, and initial clinical experience. *Echocardiography* 1995; 12(1):49-59
47. Hijazi ZM, Cao QL, Geggel R, Schwartz SL, Marx GR, Rhodes J, Fulton DR, Pandian N: Acoustic quantification of left ventricular volumes and function in children with congenital and acquired heart disease: Comparison with cineangiography. *Echocardiography* 1995; 12(2):121-127
48. Marx GR, Fulton DR, Pandian NG, Cao GL, Ludomirsky A, Delabays A, Sugeng L, Klas B. Delineation of the site, relative size and dynamic geometry of atrial septal defects by real-time 3 dimensional echocardiography. *J Am Coll Cardiol* 1995; 25(2):482-90
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51. *Simpson L, Marx G, D'Alton M: Management of supraventricular tachycardia in the fetus. *Cur Opin Obste Gynecol* 1995; 7:409-413
52. *Magni G, Qui-Ling Cao, Sugeng L, Delabays A, Marx G, Ludomirsky A, Vogel M, Pandian N: Volume rendered three-dimensional echocardiographic determination of the size, shape and position of atrial septal defects: validation in an in-vitro model. *Am Heart* 1996; 132(2) Part 1:376-381
53. Warner KG, Payne DD, Fulton DR, Geggel RG, Marx GR, Schwartz SL, Weintraub AR: Excision of a pulmonary valve abscess in a 61 Year old woman with single ventricle. *The Ann Thorac Surg* 1996; 61:213-5
54. Hijazi Z, Fadley F, Geggel R, Marx G, Galal O, Halees Z, Fulton D. Stent implantation for relief of branch pulmonary artery stenosis: Immediate and short-term results. *Cathet Cardiovasc Diag* 1996; 38:16-23

55. Rhodes J, Hijazi ZM, Marx GR, Fulton DR. Aerobic exercise function of patients with persistent coronary artery aneurysms secondary to kawasaki disease. *Pediatr Cardiol* 1996; 17:226-230
56. Irons MB, Bianchi DW, Geggel RL, Marx GR, Bhan I: Possible new autosomal recessive syndrome of lymphedema, hydroceles, atrial septal defect and characteristic facial changes. *Am Med Gene* 1996; 66:69-71
57. *Yao J, Cao Q-L, Marx G, Pandian N: Three-dimensional echocardiography: Current development and future directions. *J Med Ultrasound* 1996; 4:11-19
58. Gidding S, Leibel R, Daniels S, Rosenbaum M, Van Horn L, Marx G. Understanding obesity in youth. A statement for healthcare professionals from the committee on Atherosclerosis and Hypertension in the Young of the Council on Cardiovascular Disease in the Young and the Nutrition Committee, American Heart Association. *Circulation* 1996; 94:3383-3387
59. Rhodes J, Geggel R, Marx G, Bevilacqua L, Dambach Y, Hijazi Z: Excessive anaerobic metabolism during exercise following repair of aortic coarctation. *J Pediatrics* 1997; 131:210-4
60. *Costeas X, Berul C, Foote C, Homoud M, Marx G, Smith J, Estes N, Wang P. Transcoronary ethanol ablation of the atrioventricular node in a young patient with tricuspid atresia. *Pacing Clin Electrophysiol* 1998;21:620-623.
61. Paris YM, Bhan I, Marx GR, Rhodes J: Truncus arteriosus with a single left ventricle. *Am Heart J* 1997; 133:377-380
62. Rhodes J, Fulton DR, Levine J, Marx GR: Comparison between the mean dP/dt during isovolumetric contraction and other echocardiographic indexes of ventricular systolic function. *Echocardiography* 1997; 14:215-222
63. *Sugeng L, Cao Q, Delabays A, Esakof D, Marx G, Vannam M, Wasburn D, Pandian N: 3-D echocardiographic evaluation of aortic disorder using rotational mode of image acquisition: experimental and clinical studies. *Am J Cardiol* 1997; 10 (No. 2):120-132
64. Rhodes J, Marx G, Tardif J, Romero B, Robinson A, Acar P, Pandian N, Fulton D. Evaluation of ventricular dP/dt before and after open heart surgery using transesophageal echocardiography. *Echocardiography* 1997; Vol 11, No. 1:15-22
65. *Simpson L, Marx G, D'Alton M. Supraventricular tachycardia in the fetus: conservative management in the absence of hemodynamic compromise. *Ultrasound Med* 1997; 16 (No. 7):459-464
66. Rhodes J, Warner KG, Fulton DR, Romero BS, Schmidt CH, Marx GM. Fate of mitral regurgitation following repair of atrioventricular septal defect. *Am J Cardiol* 1997; 80:1194-1197
67. Hijazi ZM, Geggel RL, Marx GR, Rhodes J, Fulton, DR. Balloon angioplasty for native coarctation of the aorta: acute and mid-term results. *J Invasive Cardiol* 1997;9:344-348.
68. *Magni G, Hijazi ZM, Pandian NG, Delabays A, Sugeng L, Laskari C, Marx GR. Two and three-dimensional transesophageal echocardiography in patient selection and assessment

- of atrial septal defect closure by the new Angel Wings-Das Device: initial clinical experience. *Circulation* 1997; 96(6): 1722-28.
69. McElhinney D, Reddy V, Feurstein B, Marx G, Hanley F. Intraoperative Discovery of Neuroblastoma in an Infant with Pulmonary Atresia and Aortopulmonary Collaterals. *Ann Thorac Surg* 1997, 64:1827-9.
 70. Berul C, Hill S, Wang P, Marx G, Fulton D, Estes M. Neonatal radiofrequency catheter ablation of junctional tachycardias. *Interv Cardiac Electrophysiol* 1998; 2:91-100.
 71. Berul C, Hill S, Geggel R, Hijazi Z, Marx G, Rhodes J, Walsh K, Fulton D. Prolonged depolarization and inhomogeneous repolarization predicts late sudden death risk in post-operative tetralogy of Fallot. *Cardiovasc Electrophysiol*, 1998 ; 8:1349-1356.
 72. Rhodes J, Dave A, Pulling M, Geggel R, Hijazi Z, Fulton D, Marx G. Effect of Pulmonary Artery Stenoses on the Cardiopulmonary Response to Exercise Following Repair of Tetralogy of Fallot. *Am J Cardiol* 1998: 81 (10): 1217-1219
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