

## BIBLIOGRAFÍA

1. Mor-Avi V, Sugeng L, Lang RM. Real-time 3-dimensional echocardiography: an integral component of the routine echocardiographic examination in adult patients? *Circulation* 2009;119:314-29. <http://doi.org/fg4m77>
2. Soliman OI, Krenning BJ, Geleijnse ML, Nemes A, Bosch JG, van Geuns RJ, et al. Quantification of left ventricular volumes and function in patients with cardiomyopathies by real-time three-dimensional echocardiography: a head-to-head comparison between two different semiautomated endocardial border detection algorithms. *J Am Soc Echocardiogr* 2007;20:1042-9. <http://doi.org/bmcvw3>
3. Mor-Avi V, Jenkins C, Kuhl HP, Nesser HJ, Marwick T, Franke A, Ebner C, et al. Real-time 3-dimensional echocardiographic quantification of left ventricular volumes: multicenter study for validation with magnetic resonance imaging and investigation of sources of error. *JACC Cardiovasc Imaging* 2008;1:413-23. <http://doi.org/cnpjz5>
4. Mor-Avi V, Sugeng L, Weinert L, MacEneaney P, Caiani EG, Koch R, et al. Fast measurement of left ventricular mass with real-time three-dimensional echocardiography: comparison with magnetic resonance imaging. *Circulation* 2004;110:1814-8. <http://doi.org/cgdjvt>
5. Caiani EG, Corsi C, Sugeng L, MacEneaney P, Weinert L, Mor-Avi V, et al. Improved quantification of left ventricular mass based on endocardial and epicardial surface detection with real time three dimensional echocardiography. *Heart* 2006;92:213-9. <http://doi.org/drpvv6>
6. Pouleur AC, le Polain de Waroux JB, Pasquet A, Gerber BL, Gérard O, Allain P, et al. Assessment of left ventricular mass and volumes by three-dimensional echocardiography in patients with or without wall motion abnormalities: comparison against cine magnetic resonance imaging. *Heart* 2008;94:1050-7. <http://doi.org/bdh9tn>
7. Mor-Avi V, Lang RM, Badano LP, Belohlavek M, Cardim NM, Derumeaux G, et al. Current and evolving echocardiographic techniques for the quantitative evaluation of cardiac mechanics: ASE/EAE consensus statement on methodology and indications endorsed by the Japanese Society of Echocardiography. *J Am Soc Echocardiogr* 2011;24:277-313. <http://doi.org/q2v>
8. Yodwut C, Weinert L, Klas B, Lang RM, Mor-Avi V. Effects of frame rate on three-dimensional speckle-tracking-based measurements of myocardial deformation. *J Am Soc Echocardiogr* 2012;25:978-85. <http://doi.org/q2v>
9. Sugeng L, Mor-Avi V, Weinert L, Niel J, Ebner C, Steringer-Mascherbauer R, et al. Multimodality comparison of quantitative volumetric analysis of the right ventricle. *JACC Cardiovasc Imaging* 2010;3:10-8. <http://doi.org/btkn65>
10. Mor-Avi V, Yodwut C, Jenkins C, Kühl H, Nesser HJ, Marwick TH, et al. Real-time 3D echocardiographic quantification of left atrial volume: multicenter study for validation with CMR. *JACC Cardiovasc Imaging* 2012;5:769-77. <http://doi.org/q2w>
11. Otsuji Y, Handschumacher MD, Schwammenthal E, Jiang L, Song JK, Guerrero JL, et al. Insights from three-dimensional echocardiography into the mechanism of functional mitral regurgitation: direct in vivo demonstration of altered leaflet tethering geometry. *Circulation* 1997;96:1999-2008. <http://doi.org/q2x>
12. Kaplan SR, Bashein G, Sheehan FH, Legget ME, Munt B, Li XN, et al. Three-dimensional echocardiographic assessment of annular shape changes in the normal and regurgitant mitral valve. *Am Heart J* 2000;139:378-87. <http://doi.org/c76t9s>
13. Flachskampf FA, Chandra S, Gaddipati A, Levine RA, Weyman AE, Ameling W, et al. Analysis of shape and motion of the mitral annulus in subjects with and without cardiomyopathy by echocardiographic 3-dimensional reconstruction. *J Am Soc Echocardiogr* 2000;13:277-87. <http://doi.org/dswnj8>
14. Kwan J, Shiota T, Agler DA, Popović ZB, Qin JX, Gillinov MA, et al. Geometric differences of the mitral apparatus between ischemic and dilated cardiomyopathy with significant mitral regurgitation: real-time three-dimensional echocardiography study. *Circulation* 2003;107:1135-40. <http://doi.org/bd3pp5>
15. Ahmed S, Nanda NC, Miller AP, Nekkanti R, Yousif AM, Pacifico AD, et al. Usefulness of transesophageal three-dimensional echocardiography in the identification of individual segment/scallop prolapse of the mitral valve. *Echocardiography* 2003;20:203-9. <http://doi.org/bmgs4n>
16. Langer F, Rodriguez F, Ortiz S, Cheng A, Nguyen TC, Zasio MK, et al. Subvalvular repair: the key to repairing ischemic mitral regurgitation? *Circulation* 2005;112:I383-I389.
17. Schwalm SA, Sugeng L, Raman J, Jeevanandum V, Lang RM. Assessment of mitral valve leaflet perforation as a result of infective endocarditis by 3-dimensional real-time echocardiography. *J Am Soc Echocardiogr* 2004;17:919-22. <http://doi.org/bv4vtv>
18. Watanabe N, Ogasawara Y, Yamaura Y, Yamamoto K, Wada N, Kawamoto T, et al. Geometric differences of the mitral valve tenting between anterior and inferior myocardial infarction with significant ischemic mitral regurgitation: quantitation by novel software system with transthoracic real-time three-dimensional echocardiography. *J Am Soc Echocardiogr* 2006;19:71-5. <http://doi.org/fvbrgj>
19. Song JM, Qin JX, Kongsarepong V, Shiota M, Agler DA, Smedira NG, et al. Determinants of ischemic mitral regurgitation in patients with chronic anterior wall myocardial infarction: a real time three-dimensional echocardiography study. *Echocardiography* 2006;23:650-7. <http://doi.org/c3xqwq>
20. Ryan L, Jackson B, Parish L, Sakamoto H, Plappert T, Sutton MS, et al. Quantification and localization of mitral valve tenting in ischemic mitral regurgitation using real-time three-dimensional echocardiography. *Eur J Cardiothorac Surg* 2007;31:839-4. <http://doi.org/bftqfx>
21. Daimon M, Saracino G, Gillinov AM, Koyama Y, Fukuda S, Kwan J, et al. Local dysfunction and asymmetrical deformation of mitral annular geometry in ischemic mitral regurgitation: a novel computerized 3D echocardiographic analysis. *Echocardiography* 2008;25:414-23. <http://doi.org/fjx79v>
22. Chandra S, Salgo IS, Sugeng L, Weinert L, Tsang W, Takeuchi M, et al. Characterization of degenerative mitral valve disease using morphologic analysis of real-time three-dimensional echocardiographic images: objective insight into complexity and planning of mitral valve repair. *Circ Cardiovasc Imaging* 2011;4:24-32. <http://doi.org/c9qfsh>
23. Garcia-Orta R, Moreno E, Vidal M, Ruiz-López F, Oyónarte JM, Lara J, et al. Three-dimensional versus two-dimensional transesophageal echocardiography in mitral valve repair. *J Am Soc Echocardiogr* 2007;20:4-12. <http://doi.org/fhww96>
24. Grewal J, Mankad S, Freeman WK, Click RL, Suri RM, Abel MD, et al. Real-time three-dimensional transesophageal echocardiography in the intraoperative assessment of mitral valve disease. *J Am Soc Echocardiogr* 2009;22:34-41. <http://doi.org/dnwdn6>
25. Pepi M, Tamborini G, Maltagliati A, Galli CA, Sisillo E, Salvi L, et al. Head-to-head comparison of two- and three-dimensional transthoracic and transesophageal echocardiography in the localization of mitral valve prolapse. *J Am Coll Cardiol* 2006;48:2524-30. <http://doi.org/d9dp8c>
26. Grewal J, Suri R, Mankad S, Tanaka A, Mahoney DW, Schaff HV, et al. Mitral annular dynamics in myxomatous valve disease: new insights with real-time 3-dimensional echocardiography. *Circulation* 2010;121:1423-31. <http://doi.org/d4p2m6>
27. Jebara VA, Mihaileanu S, Acar C, Brizard C, Grare P, Latremouille C, et al. Left ventricular outflow tract obstruction after mitral valve repair. Results of the sliding leaflet technique. *Circulation* 1993;88:II30-II34.
28. Lee KS, Stewart WJ, Lever HM, Underwood PL, Cosgrove DM. Mechanism of outflow tract obstruction causing failed mitral valve repair. Anterior displacement of leaflet coaptation. *Circulation* 1993;88:II24-II29.
29. Carpentier A, Chauvaud S, Fabiani JN, Deloche A, Relland J, Lessana A, et al. Reconstructive surgery of mitral valve incompetence: ten-year appraisal. *J Thorac Cardiovasc Surg* 1980;79:338-48.
30. Flameng W, Meuris B, Herijgers P, Herregods MC. Durability of mitral valve repair in Barlow disease versus fibroelastic deficiency. *J Thorac Cardiovasc Surg* 2008;135:274-82. <http://doi.org/c7mb4p>

31. Little SH. Three-dimensional echocardiography to quantify mitral valve regurgitation. *Curr Opin Cardiol* 2012;27:477-84. <http://doi.org/rbj>
32. Kahlert P, Plicht B, Schenk IM, Janosi RA, Erbel R, Buck T. Direct assessment of size and shape of noncircular vena contracta area in functional versus organic mitral regurgitation using real-time three-dimensional echocardiography. *J Am Soc Echocardiogr* 2008;21:912-21. <http://doi.org/dxdhgz>
33. Little SH, Pirat B, Kumar R, Igo SR, McCulloch M, Hartley CJ, et al. Three-dimensional color Doppler echocardiography for direct measurement of vena contracta area in mitral regurgitation: in vitro validation and clinical experience. *JACC Cardiovasc Imaging* 2008;1:695-704. <http://doi.org/dx3ddj>
34. Zeng X, Levine RA, Hua L, Morris EL, Kang Y, Flaherty M, et al. Diagnostic value of vena contracta area in the quantification of mitral regurgitation severity by color Doppler 3D echocardiography. *Circ Cardiovasc Imaging* 2011;4:506-13. <http://doi.org/dqw792>
35. Marsan NA, Westenberg JJ, Ypenburg C, Delgado V, van Bommel RJ, Roes SD, et al. Quantification of functional mitral regurgitation by real-time 3D echocardiography: comparison with 3D velocity-encoded cardiac magnetic resonance. *JACC Cardiovasc Imaging* 2009;2:1245-52. <http://doi.org/d5djj9>
36. Yosefy C, Hung J, Chua S, Vaturi M, Ton-Nu TT, Handschumacher MD, et al. Direct measurement of vena contracta area by real-time 3-dimensional echocardiography for assessing severity of mitral regurgitation. *Am J Cardiol* 2009;104:978-83. <http://doi.org/dq3qfp>
37. Matsumura Y, Saracino G, Sugioka K, Tran H, Greenberg NL, Wada, et al. Determination of regurgitant orifice area with the use of a new three-dimensional flow convergence geometric assumption in functional mitral regurgitation. *J Am Soc Echocardiogr* 2008;21:1251-6. <http://doi.org/c9tk3v>
38. Little SH, Igo SR, Pirat B, McCulloch M, Hartley CJ, Nosé Y, et al. In vitro validation of real-time three-dimensional color Doppler echocardiography for direct measurement of proximal isovelocity surface area in mitral regurgitation. *Am J Cardiol* 2007;99:1440-7. <http://doi.org/b92tmd>
39. Chandra S, Salgo IS, Sugeng L, Weinert L, Settlemier SH, Mor-Avi V, et al. A three-dimensional insight into the complexity of flow convergence in mitral regurgitation: adjunctive benefit of anatomic regurgitant orifice area. *Am J Physiol Heart Circ Physiol* 2011;301:H1015-H1024. <http://doi.org/cdht7z>
40. Altiok E, Hamada S, van HS, Hanenberg M, Dohmen G, Almalla M, et al. Comparison of direct planimetry of mitral valve regurgitation orifice area by three-dimensional transesophageal echocardiography to effective regurgitant orifice area obtained by proximal flow convergence method and vena contracta area determined by color Doppler echocardiography. *Am J Cardiol* 2011;107:452-8. <http://doi.org/fpzppn>
41. Mannaerts HF, Kamp O, Visser CA. Should mitral valve area assessment in patients with mitral stenosis be based on anatomical or on functional evaluation? A plea for 3D echocardiography as the new clinical standard. *Eur Heart J* 2004;25:2073-4. <http://doi.org/bssppb>
42. Zamorano J, Cordeiro P, Sugeng L, Perez de Isla L, Weinert L, Macaya C, et al. Real-time three-dimensional echocardiography for rheumatic mitral valve stenosis evaluation: an accurate and novel approach. *J Am Coll Cardiol* 2004;43:2091-6. <http://doi.org/fjc678>
43. Binder TM, Rosenhek R, Porenta G, Maurer G, Baumgartner H. Improved assessment of mitral valve stenosis by volumetric real-time three-dimensional echocardiography. *J Am Coll Cardiol* 2000;36:1355-61. <http://doi.org/dqm7ss>
44. Pérez de Isla L, Casanova C, Almería C, Rodrigo JL, Cordeiro P, Mataix L, et al. Which method should be the reference method to evaluate the severity of rheumatic mitral stenosis? Gorlin's method versus 3D-echo. *Eur J Echocardiogr* 2007;8:470-3. <http://doi.org/cwzvz4>
45. Kurra V, Kapadia SR, Tuzcu EM, Halliburton SS, Svensson L, Roselli EE, et al. Pre-procedural imaging of aortic root orientation and dimensions: comparison between X-ray angiographic planar imaging and 3-dimensional multidetector row computed tomography. *JACC Cardiovasc Interv* 2010;3:105-13. <http://doi.org/fc278m>
46. Burman ED, Keegan J, Kilner PJ. Aortic root measurement by cardiovascular magnetic resonance: specification of planes and lines of measurement and corresponding normal values. *Circ Cardiovasc Imaging* 2008;1:104-13. <http://doi.org/fhkcpn>
47. Alunni G, Giorgi M, Sartori C, Conrotto F, D'Amico M, Scaciatella P, et al. Real time triplane echocardiography in aortic valve stenosis: validation, reliability, and feasibility of a new method for valve area quantification. *Echocardiography* 2010;27:644-50. <http://doi.org/cf2d8m>
48. Blot-Souletie N, Hebrard A, Acar P, Carrie D, Puel J. Comparison of accuracy of aortic valve area assessment in aortic stenosis by real time three-dimensional echocardiography in biplane mode versus two-dimensional transthoracic and transesophageal echocardiography. *Echocardiography* 2007;24:1065-72. <http://doi.org/d5t5q4>
49. Ge S, Warner JG, Jr, Abraham TP, Kon ND, Brooker RF, Nomeir AM, et al. Three-dimensional surface area of the aortic valve orifice by three-dimensional echocardiography: clinical validation of a novel index for assessment of aortic stenosis. *Am Heart J* 1998;136:1042-50. <http://doi.org/c74z65>
50. Golland S, Trento A, Iida K, Czer LS, De Robertis M, Naqvi TZ, et al. Assessment of aortic stenosis by three-dimensional echocardiography: an accurate and novel approach. *Heart* 2007;93:801-7. <http://doi.org/cn4w72>
51. Suradi H, Byers S, Green-Hess D, Gradus-Pizlo I, Sawada S, Feigenbaum H. Feasibility of using real time "Live 3D" echocardiography to visualize the stenotic aortic valve. *Echocardiography* 2010;27:1011-20. <http://doi.org/fdmxcr>
52. Gilon D, Cape EG, Handschumacher MD, Song JK, Solheim J, VanAuker M, et al. Effect of three-dimensional valve shape on the hemodynamics of aortic stenosis: three-dimensional echocardiographic stereolithography and patient studies. *J Am Coll Cardiol* 2002;40:1479-86. <http://doi.org/d38pgd>
53. Mori Y, Shiota T, Jones M, Wanitkun S, Irvine T, Li X, et al. Three-dimensional reconstruction of the color Doppler-imaged vena contracta for quantifying aortic regurgitation: studies in a chronic animal model. *Circulation* 1999;99:1611-7. <http://doi.org/rbk>
54. Paelinck BP, Van Herck PL, Rodrigus I, Claeys MJ, Laborde JC, Parizel PM, et al. Comparison of magnetic resonance imaging of aortic valve stenosis and aortic root to multimodality imaging for selection of transcatheter aortic valve implantation candidates. *Am J Cardiol* 2011;108:92-8. <http://doi.org/fr7trm>
55. Ge S, Warner JG, Jr, Fowle KM, Kon ND, Brooker RF, Nomeir AM, et al. Morphology and dynamic change of discrete subaortic stenosis can be imaged and quantified with three-dimensional transesophageal echocardiography. *J Am Soc Echocardiogr* 1997;10:713-6. <http://doi.org/dh9jmn>
56. Bharucha T, Ho SY, Vettukattil JJ. Multiplanar review analysis of three-dimensional echocardiographic datasets gives new insights into the morphology of subaortic stenosis. *Eur J Echocardiogr* 2008;9:614-20. <http://doi.org/d9kgq3>
57. Pérez de Isla L, Zamorano J, Pérez de la Yglesia R, Cioccarelli S, Almería C, Rodrigo JL, et al. [Quantification of aortic valve area using three-dimensional echocardiography]. *Rev Esp Cardiol* 2008;61:494-500. <http://doi.org/d23wex>
58. Doddamani S, Bello R, Friedman MA, Banerjee A, Bowers JH Jr, Kim B, et al. Demonstration of left ventricular outflow tract eccentricity by real time 3D echocardiography: implications for the determination of aortic valve area. *Echocardiography* 2007;24:860-6. <http://doi.org/dfsmpq>
59. Menzel T, Mohr-Kahaly S, Wagner S, Fischer T, Bruckner A, Meyer J. Calculation of left ventricular outflow tract area using three-dimensional echocardiography. Influence on quantification of aortic valve stenosis. *Int J Card Imaging* 1998;14:373-9. <http://doi.org/cpzppj>
60. Poh KK, Levine RA, Solis J, Shen L, Flaherty M, Kang YJ, et al. Assessing aortic valve area in aortic stenosis by continuity equation: a novel approach using real-time three-dimensional echocardiography. *Eur Heart J* 2008;29:2526-35. <http://doi.org/cmb4s2>
61. Gutiérrez-Chico JL, Zamorano JL, Prieto-Moriche E, Hernández-

- Antolín RA, Bravo-Amaro M, Pérez de Isla L, et al. Real-time three-dimensional echocardiography in aortic stenosis: a novel, simple, and reliable method to improve accuracy in area calculation. *Eur Heart J* 2008;29:1296-306. <http://doi.org/c82qnd>
62. Nakai H, Takeuchi M, Yoshitani H, Kaku K, Haruki N, Otsuji Y. Pitfalls of anatomical aortic valve area measurements using two-dimensional transthoracic echocardiography and the potential of three-dimensional transthoracic echocardiography. *Eur J Echocardiogr* 2010;11:369-76. <http://doi.org/drdx26>
63. Li X, Jones M, Irvine T, Rusk RA, Mori Y, Hashimoto I, et al. Real-time 3-dimensional echocardiography for quantification of the difference in left ventricular versus right ventricular stroke volume in a chronic animal model study: Improved results using C-scans for quantifying aortic regurgitation. *J Am Soc Echocardiogr* 2004;17:870-5. <http://doi.org/brgkz4>
64. Irvine T, Stetten GD, Sachdev V. Quantification of aortic regurgitation by real-time 3-dimensional echocardiography in a chronic animal model: computation of aortic regurgitant volume as the difference between left and right ventricular stroke volumes. *J Am Soc Echocardiogr* 2001;14:1112-8. <http://doi.org/fsj789>
65. Ton-Nu TT, Levine RA, Handschumacher MD, Dorer DJ, Yosefy C, Fan D, et al. Geometric determinants of functional tricuspid regurgitation: insights from 3-dimensional echocardiography. *Circulation* 2006;114:143-9. <http://doi.org/c5bzzv>
66. Fukuda S, Saracino G, Matsumura Y, Daimon M, Tran H, Greenberg NL, et al. Three-dimensional geometry of the tricuspid annulus in healthy subjects and in patients with functional tricuspid regurgitation: a real-time, 3-dimensional echocardiographic study. *Circulation* 2006;114:I492-I498. <http://doi.org/dndbqm>
67. Anwar AM, Geleijnse ML, Ten Cate FJ, Meijboom FJ. Assessment of tricuspid valve annulus size, shape and function using real-time three-dimensional echocardiography. *Interact Cardiovasc Thorac Surg* 2006;5:683-7. <http://doi.org/c2mbgx>
68. Marechaux S, Juthier F, Banfi C, Vincentelli A, Prat A, Ennezat PV. Illustration of the echocardiographic diagnosis of subaortic membrane stenosis in adults: surgical and live three-dimensional transthoracic findings. *Eur J Echocardiogr* 2011;12:E2. <http://doi.org/d94392>
69. Bandarupalli N, Faulkner M, Nanda NC, Pothineni KR. Erroneous diagnosis of significant obstruction by Doppler in a patient with discrete subaortic membrane: correct diagnosis by 3D-transthoracic echocardiography. *Echocardiography* 2008;25:1004-6. <http://doi.org/bhpndb>
70. Kelpis TG, Ninios VN, Dardas PS, Pitsis AA. Subaortic stenosis in an adult caused by two discrete membranes: a three-dimensional transesophageal echocardiographic visualization. *Ann Thorac Surg* 2009;88:1703. <http://doi.org/fj8kqt>
71. Khaw AV, von Bardeleben RS, Strasser C, Mohr-Kahaly S, Blankenberg S, Espinola-Klein C, et al. Direct measurement of left ventricular outflow tract by transthoracic real-time 3D-echocardiography increases accuracy in assessment of aortic valve stenosis. *Int J Cardiol* 2009;136:64-71. <http://doi.org/cn5m8p>
72. Dichtl W, Muller LC, Pachinger O, Schwarzacher SP, Muller S. Images in cardiovascular medicine. Improved preoperative assessment of papillary fibroelastoma by dynamic three-dimensional echocardiography. *Circulation* 2002;106:1300. <http://doi.org/bgwf3t>
73. Kelpis TG, Ninios VN, Economopoulos VA, Pitsis AA. Aortic valve papillary fibroelastoma: a three-dimensional transesophageal echocardiographic appearance. *Ann Thorac Surg* 2010;89:2043. <http://doi.org/fhck37>
74. Samal AK, Nanda N, Thakur AC, Narayan VK, Ocak O, Lee TY, et al. Three-dimensional echocardiographic assessment of Lambli's excrescences on the aortic valve. *Echocardiography* 1999;16:437-41. <http://doi.org/c9nrf6>
75. Tops LF, Wood DA, Delgado V, Schuijf JD, Mayo JR, Pasupati S, et al. Noninvasive evaluation of the aortic root with multislice computed tomography implications for transcatheter aortic valve replacement. *JACC Cardiovasc Imaging* 2008;1:321-30. <http://doi.org/fwfkvw>
76. Chin CH, Chen CH, Lo HS. The correlation between three-dimensional vena contracta area and aortic regurgitation index in patients with aortic regurgitation. *Echocardiography* 2010;27:161-6. <http://doi.org/bj4vr9>
77. Fang L, Hsiung MC, Miller AP, Nanda NC, Yin WH, Young MS, et al. Assessment of aortic regurgitation by live three-dimensional transthoracic echocardiographic measurements of vena contracta area: usefulness and validation. *Echocardiography* 2005;22:775-81. <http://doi.org/ck7crm>
78. Kwan J, Kim GC, Jeon MJ, Kim DH, Shiota T, Thomas JD, et al. 3D geometry of a normal tricuspid annulus during systole: a comparison study with the mitral annulus using real-time 3D echocardiography. *Eur J Echocardiogr* 2007;8:375-83. <http://doi.org/bk4gkd>
79. Anwar AM, Soliman OI, Nemes A, Germans T, Krenning BJ, Geleijnse ML, et al. Assessment of mitral annulus size and function by real-time 3-dimensional echocardiography in cardiomyopathy: comparison with magnetic resonance imaging. *J Am Soc Echocardiogr* 2007;20:941-8. <http://doi.org/c3mgd9>
80. Anwar AM, Geleijnse ML, Soliman OI, McGhie JS, Frowijn R, Nemes A, et al. Assessment of normal tricuspid valve anatomy in adults by real-time three-dimensional echocardiography. *Int J Cardiovasc Imaging* 2007;23:717-24. <http://doi.org/dn7q5r>
81. Schnabel R, Khaw AV, von Bardeleben RS, Strasser C, Kramm T, Meyer J, et al. Assessment of the tricuspid valve morphology by transthoracic real-time-3D-echocardiography. *Echocardiography* 2005;22:15-23. <http://doi.org/dk76hm>
82. Velayudhan DE, Brown TM, Nanda NC, Patel V, Miller AP, Mehmood F, et al. Quantification of tricuspid regurgitation by live three-dimensional transthoracic echocardiographic measurements of vena contracta area. *Echocardiography* 2006;23:793-800. <http://doi.org/c6j4gw>
83. Sugeng L, Weinert L, Lang RM. Real-time 3-dimensional color Doppler flow of mitral and tricuspid regurgitation: feasibility and initial quantitative comparison with 2-dimensional methods. *J Am Soc Echocardiogr* 2007;20:1050-7. <http://doi.org/ftckwc>
84. Song JM, Jang MK, Choi YS, Kim YJ, Min SY, Kim DH, et al. The vena contracta in functional tricuspid regurgitation: a real-time three-dimensional color Doppler echocardiography study. *J Am Soc Echocardiogr* 2011;24:663-70. <http://doi.org/dn79kw>
85. Seo Y, Ishizu T, Nakajima H, Sekiguchi Y, Watanabe S, Aonuma K. Clinical utility of 3-dimensional echocardiography in the evaluation of tricuspid regurgitation caused by pacemaker leads. *Circ J* 2008;72:1465-70. <http://doi.org/dwz3mc>
86. Takahashi K, Mackie AS, Rebeyka IM, Ross DB, Robertson M, Dyck JD, et al. Two-dimensional versus transthoracic real-time three-dimensional echocardiography in the evaluation of the mechanisms and sites of atrioventricular valve regurgitation in a congenital heart disease population. *J Am Soc Echocardiogr* 2010;23:726-34. <http://doi.org/bm4v8q>
87. Parranon S, Abadir S, Acar P. New insight into the tricuspid valve in Ebstein anomaly using three-dimensional echocardiography. *Heart* 2006;92:1627. <http://doi.org/csmghm>
88. van Noord PT, Scohy TV, McGhie J, Bogers AJ. Three-dimensional transesophageal echocardiography in Ebstein's anomaly. *Interact Cardiovasc Thorac Surg* 2010;10:836-7. <http://doi.org/bkt2wv>
89. Vettukattil JJ, Bharucha T, Anderson RH. Defining Ebstein's malformation using three-dimensional echocardiography. *Interact Cardiovasc Thorac Surg* 2007;6:685-90. <http://doi.org/d9v2dz>
90. Conaglen PJ, Ellims A, Roysse C, Roysse A. Acute repair of traumatic tricuspid valve regurgitation aided by three-dimensional echocardiography. *Heart Lung Circ* 2011;20:237-40. <http://doi.org/dmbtrj>
91. Nishimura K, Okayama H, Inoue K, Saito M, Nagai T, Suzuki J, et al. Visualization of traumatic tricuspid insufficiency by three-dimensional echocardiography. *J Cardiol* 2010;55:143-6. <http://doi.org/dh7c3z>
92. Reddy VK, Nanda S, Bandarupalli N, Pothineni KR, Nanda NC. Traumatic tricuspid papillary muscle and chordae rupture: emerging role of three-dimensional echocardiography. *Echocardiography* 2008;25:653-7. <http://doi.org/c8xwds>

93. Anwar AM, Geleijnse ML, Soliman OI, McGhie JS, Nemes A, Ten Cate FJ. Evaluation of rheumatic tricuspid valve stenosis by real-time three-dimensional echocardiography. *Heart* 2007;93:363-4. <http://doi.org/ds9h5f>
94. Stamm C, Anderson RH, Ho SY. Clinical anatomy of the normal pulmonary root compared with that in isolated pulmonary valvular stenosis. *J Am Coll Cardiol* 1998;31:1420-5. <http://doi.org/d9p787>
95. Kelly NF, Platts DG, Burstow DJ. Feasibility of pulmonary valve imaging using three-dimensional transthoracic echocardiography. *J Am Soc Echocardiogr* 2010;23:1076-80. <http://doi.org/ccwfw>
96. Sugeng L, Shernan SK, Weinert L, Shook D, Raman J, Jeevanandam V, et al. Real-time three-dimensional transesophageal echocardiography in valve disease: comparison with surgical findings and evaluation of prosthetic valves. *J Am Soc Echocardiogr* 2008;21:1347-54. <http://doi.org/bcz6h6>
97. Kort S. Real-time 3-dimensional echocardiography for prosthetic valve endocarditis: initial experience. *J Am Soc Echocardiogr* 2006;19:130-9. <http://doi.org/b47c5c>
98. Lang RM, Tsang W, Weinert L, Mor-Avi V, Chandra S. Valvular heart disease. The value of 3-dimensional echocardiography. *J Am Coll Cardiol* 2011;58:1933-44. <http://doi.org/dkntwk>
99. Tsang W, Weinert L, Kronzon I, Lang RM. Three-dimensional echocardiography in the assessment of prosthetic valves. *Rev Esp Cardiol* 2011;64:1-7. <http://doi.org/fmz2kq>
100. Kronzon I, Sugeng L, Perk G, Hirsh D, Weinert L, García Fernández MA, et al. Real-time 3-dimensional transesophageal echocardiography in the evaluation of post-operative mitral annuloplasty ring and prosthetic valve dehiscence. *J Am Coll Cardiol* 2009;53:1543-7. <http://doi.org/c3tx4k>
101. Langerveld J, Valocik G, Plokker HW, Ernst SM, Mannaerts HF, Kelder JC, et al. Additional value of three-dimensional transesophageal echocardiography for patients with mitral valve stenosis undergoing balloon valvuloplasty. *J Am Soc Echocardiogr* 2003;16:841-9. <http://doi.org/fkjkvq>
102. Johnson MA, Munt B, Moss RR. Transcatheter aortic valve implantation-- a first line treatment for aortic valve disease? *J Am Soc Echocardiogr* 2010;23:377-9. <http://doi.org/bt7gsc>
103. Naqvi TZ, Rafee R, Ghalichi M. Real-time 3D TEE for the diagnosis of right-sided endocarditis in patients with prosthetic devices. *JACC Cardiovasc Imaging* 2010;3:325-7. <http://doi.org/dfvbtw>
104. Perk G, Lang RM, Garcia-Fernandez MA, Lodato J, Sugeng L, Lopez J, et al. Use of real time three-dimensional transesophageal echocardiography in intracardiac catheter based interventions. *J Am Soc Echocardiogr* 2009;22:865-82. <http://doi.org/dg3fcp>
105. Lee AP, Lam YY, Yip GW, Lang RM, Zhang Q, Yu CM. Role of real time three-dimensional transesophageal echocardiography in guidance of interventional procedures in cardiology. *Heart* 2010;96:1485-93. <http://doi.org/ctqmkc>