

## PUBLICATIONS

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### *National Practice Guideline / Scientific Statement*

Levine GN, Lange RA, Bairey-Merz CN, Davidson RJ, Jamerson K, Mehta PK, Michos ED, Norris K, **Basu Ray I**, Saban KL, Shah T, Stein R, Smith SC Jr; on behalf of the American Heart Association. Meditation and cardiovascular risk reduction: a scientific statement from the **American Heart Association**. *J Am Heart Assoc*. 2017;6: e002218.

### *Peer-Reviewed Journal Articles*

1. Basu Ray I, Reddy KNR. Neutral peptidase inhibitors. *Heart Drug*. 2001 Aug;1(4):236-240.
2. Basu Ray I. New cardiac markers: selecting the best tools to reach an accurate diagnosis and determine the patient's prognosis. *J Indian Med Assoc*. 2001 Sept;99(9):509-512. PMID: 12018560.
3. Basu Ray I. Preventing sudden death and the use of prophylactic implanted defibrillators. *Indian Pacing Electrophysiol J*. 2003 Apr;3(2):60-66. PMID: 16943958.
4. Basu Ray I. Narrow complex tachycardia: recognition and management in the emergency room. *J Physicians India*. 2004 Oct;5(10):816-824. PMID: 15909859.
5. Basu Ray I. Wide complex tachycardia: recognition and management in the emergency room. *J Physicians India*. 2004 Nov;52(11):882-887. PMID: 15906839.
6. Basu Ray I, Reddy YV, Schmidt EJ, Hayase M. ICDs for primary prophylaxis of sudden cardiac death: present status. *Int J Cardiol*. 2005 Jan;98(1):15-20. PMID: 15676160.
7. Basu Ray I, Heist KE. Treating atrial fibrillation: what is the consensus now? *Postgrad Med*. 2005 Oct;18(4):47-58. PMID: 16296263.
8. Basu Ray I, Pomerantseva I, Schmidt EJ, Houghtaling C, McPherson C, Singh JP, Vacanti JP, Gold HK, Ruskin JN, Reddy YV, Malchano ZY, Abbara S. Injection of bone marrow-derived cells into a porcine myocardial infarction model guided by integration of electroanatomical mapping and magnetic resonance imaging. *Heart Rhythm*. 2005 May;2(5):S109.
9. Basu Ray I, Fendelander L, Singh JP, Liu J, Jia X. Cardiac resynchronization therapy and its potential proarrhythmic effect. *Clin Cardiol*. 2007 Oct;30(10):498-502. PMID: 17823906.
10. Basu Ray I, Dukkipati S, Houghtaling C, McPherson CD, Kastelein N, Ruskin JN, Reddy VY. Initial experience with a novel remote-guided magnetic catheter navigation system for left ventricular scar mapping and ablation in a porcine model of healed myocardial infarction. *J Cardiovasc Electrophysiol*. 2007 May;18(5):520-525. PMID: 17388912.
11. Basu Ray I, Jay Kuo CC. Multimodal data integration for computer-aided ablation of atrial fibrillation. *J Biomed Biotechnol*. 2008 Feb:1-8. PMID: PMC2246085.
12. Basu Ray I. Advancing evidence-based practice: a quarterly compilation of research updates most likely to change clinical practice. *Ochsner J*. 2012;12:294-297. PMID: 23267250.
13. Basu Ray I, Henry TL, Davis W, Alam J, Amedee R, Pinsky W. Consolidated Academic and Research Exposition: a pilot study of an innovative education method to increase research involvement of residents during residency. *Ochsner J*. 2012;12:367-372. PMID: 23267266.
14. Basu Ray I. Fragmented QRS complexes — a novel but underutilized electrocardiographic marker of heart disease. *Crit Pathw Cardiol*. 2013 Dec;12(4):181-183. PMID: 24240545.
15. Basu Ray I, Menezes AR, Joshi S, Reilly JP, Lavie CJ, Deitelzweig S, Fares H, Heist KE, Ventura H, Carter W, Meadows R. Meditation and coronary heart disease: a review of the current clinical evidence. *Ochsner J*. early online, Dec 15, 2014.
16. Basu Ray I, Parikh V, Pollet M, Wang S, Mathuria N, Lakkireddy D, Cheng J. Esophageal temperature monitoring during radiofrequency ablation of atrial fibrillation: a meta-analysis. *J Atr Fibrillation*. 2016 Oct-Nov;9(3).
17. Basu Ray I, Liu J, Jia X, Gold MR, DiNicolantonio J, Afshar H, Giorgberidze I, Lam W, Mathuria N, Komocsi K, Vorobcsuk A, Cheng J, Razavi M, Rasekh A, Saeed M. Subcutaneous versus transvenous implantable defibrillator therapy: a meta-analysis of case-control studies. *J Am Coll Cardiol Clin Electrophysiol*. 2017 Dec 26;3(13):1475-83.
18. Basu Ray I, Mehta DH, Shah SK. Initial treatment of hypertension (letter to the editor). *N Engl J Med*. 2018;378(20):1952-3.
19. Basu Ray I, Shah SK. Formulating a more comprehensive stroke-risk evaluation scale. *Tex Heart Inst J*. 2018;45(3).
20. Basu Ray I, Sudhakar D, Schwing G, Monzelun D, Zhang L, Shah SK, Pujara D, Ting K, Rafinh A, Ali G, Cassidy M, Ellenbogen A, Levine G, Lam W, Mathuria N. Complex left atrial appendage morphology is an independent risk factor for cryptogenic ischemic stroke. *Front Cardiovasc Med*. 2018;5:131.

21. Basu Ray I, Garcia-Diaz J, Khalid K, Saeed M. QT prolongation in HIV positive patients: review article. *Indian Heart J.* Elsevier; Jan 2020.
22. Basu Ray I, Soos MP. Cardiac manifestations of coronavirus (COVID-19). In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; updated 2020 Apr 12.
23. Basu Ray I, Khanra D, Shah SK, Jia X, Lui J, Lam W, Mathuria N, Razavi M, Jain B, Cheng J, Lakkireddy D, Kar S, Natale A, Bangalore S, Asirvatham S, Saeed M, Rasekh A. Meta-analysis comparing Watchman and Amplatzer devices for stroke prevention in atrial fibrillation. *Front Cardiovasc Med.* 2020 Jun 22.
24. Basu Ray I, Metri K, Khanra D, Chinnaiyan KM, Nagarathna R, Misra MC, et al. Yoga: a potential intervention for augmenting immunomodulator and mental health in COVID-19. *Front Med.* 2020.
25. Basu Ray I, Khanra D, Shah SK, Mukherjee A, Char SV, Jain B, Bunch TJ, Gold M, Adeboye AA, Saeed M. Meta-analysis comparing outcomes of catheter ablation for ventricular arrhythmia in ischemic versus nonischemic cardiomyopathy. *Pacing Clin Electrophysiol.* 2021 Jan;44(1):54-62. doi:10.1111/pace.14129.
26. Basu Ray I, Khanra D, Kupo P, Bunch J, Theus SA, Mukherjee A, Shah SK, Komocsi A, Adeboye A, Jefferies J. Outcomes of uninterrupted vs interrupted periprocedural direct oral anticoagulants in atrial fibrillation ablation: a meta-analysis. *J Arrhythm.* 2021 Jan 29 (eCollection Apr 2021).
27. Basu Ray I. Emerging technologies in cardiac pacing: from leadless pacers to stem cells. *Curr ProblCardiol.* 2021 May;46(5):100797. doi:10.1016/j.cpcardiol.2021.100797. PMID: 33561694.
28. Basu Ray I. A mechanistic model for yoga as a preventive and therapeutic modality. *Int J Yoga.* 2021 May-Aug;14(2):152-157. doi:10.4103/ijoy.IJOY\_136\_20. PMID: 34188388; PMCID: PMC8191226.
29. Basu Ray I. Meta-analysis comparing outcomes of high-power short-duration and low-power long-duration radiofrequency ablation for atrial fibrillation. *Anatol J Cardiol.* 2022 Jan;26(1):2-14. doi:10.5152/AnatolJCardiol.2021.243. PMID: 35191380; PMCID: PMC8878944.
30. Basu Ray I. A comprehensive review of yoga research in 2020. *J Integr Complement Med.* 2022 Feb;28(2):114-123. doi:10.1089/jicm.2021.0420. PMID: 35099279.
31. Basu Ray I, Sayal N, Vora A, Bammidi S, Tyagi R, Modgil S, et al. Yoga as a preventive intervention for cardiovascular diseases and associated comorbidities: open-label single-arm study. *Front Public Health.* 2022 Jun 13;10:843134. doi:10.3389/fpubh.2022.843134. PMID: 35769774; PMCID: PMC9234218.
32. Basu Ray I, Metri K, Khanra D, Revankar R, Chinnaiyan KM, Raghuram N, et al. A narrative review on yoga: a potential intervention for augmenting immunomodulation and mental health in COVID-19. *BMC Complement Med Ther.* 2022 Jul 18;22(1):191. doi:10.1186/s12906-022-03666-2. PMID: 35850685; PMCID: PMC9289356.
33. Khanra D, Manivannan S, Mukherjee A, Deshpande S, Gupta A, Rashid W, Abdalla A, Patel P, Padmanabhan D, Basu Ray I. Incidence and predictors of implantable cardioverter-defibrillator therapies after generator replacement — a pooled analysis of 31,640 patients' data. *J Innov Card Rhythm Manag.* 2022;13(12):5278-5293. doi:10.19102/icrm.2022.13121.
34. Echefu G, Stowe I, Lukan A, Sharma G, Basu Ray I, Guidry L, Schellack J, Kumbala D. Central vein stenosis in hemodialysis vascular access: clinical manifestations and contemporary management strategies. *Front Nephrol.* 2023;3. doi:10.3389/fneph.2023.1280666.
35. Basu Ray I. Mann Ki Baat — special issue. Yoga for health and wellness: evidence-based and inexpensive therapeutic adjunct from Bharat. *J Res Ayurvedic Sci.* 2023;7. doi:10.4103/jras.jras\_88\_23.
36. Echefu G, Stowe I, Burka S, Basu Ray I, Kumbala D. Pathophysiological concepts and screening of cardiovascular disease in dialysis patients. *Front Nephrol.* 2023;3. doi:10.3389/fneph.2023.1198560.
37. Basu Ray I, Soni S, Duggal B, Upadhyay J, Kumar N, Bhadoria A. Does left atrial appendage morphology and dimension differ amongst etiological stroke subtypes in patients without known atrial fibrillation? Results from the LAMDA-STROKE Study. *Indian Heart J.* 2023;75. doi:10.1016/j.ihj.2023.03.001.
38. Inbaraj G, Bajaj S, Misra P, Kandimalla N, Thapa A, Ghosal A, Sharma U, Charles P, Pobbati H, Hashmi I, Bansal B, de Vos J, De D, Elshafei O, Garg A, Basu Ray I. Yoga in obesity management: reducing cardiovascular risk and enhancing well-being — a review of the current literature. *Curr ProblCardiol.* 2025 Jun;50(6):103036. doi:10.1016/j.cpcardiol.2025.103036. PMID: 40132783.
39. Basu Ray I, Daniel RA, Saha SA, Thota AN, Ramineni A, Jamalpur D, Baiden I, Patel J, Meza M, Veeramachaneni R, Shrestha R, Ayar UD, Qi Y, Fraga C. Comparative efficacy of baroreflex activation therapy, cardiac contractility modulation, and cardiac resynchronization therapy in heart failure with reduced ejection fraction: a systematic review and network meta-analysis of randomized controlled trials. *Curr ProblCardiol.* 2026;103331. doi: 10.1016/j.cpcardiol.2026.103331.

1. Basu Ray I, Saha SA, Daniel RA, Dasgupta A, Thota AN, Mohite AM, Harsha C, Ngando I, Botsa KN, Khine MT, Vega Ordonez MV, Haris N, Sharma P, Patel R, Hanumantharayudu SK, Susarla V, Lu X, Gethenh YM, Fraga C. Comparative risk of stroke with cryoballoon, radiofrequency, and pulsed-field ablation in atrial fibrillation: systematic review and network meta-analysis of randomized controlled trials. *J Interv Card Electrophysiol*. (Under review.)
2. Basu Ray I, Mandal S, Chakraborty S, Saha SA, Thapa A, Ghosal A, Zahra A, Lokesh B, Franklin CC, De D, Ngando I, Meza M, Jovanovikj Vasileva M, Salahuddin N, Kandimalla N, Ogbuagu OK, Kasireddy S, Thapa S, Fraga C, Kosireddy SS. Yoga and yoga-related intervention as cardiac rehabilitation among patients with past coronary artery disease: a systematic review and meta-analysis. *Explore*. (Under review.)
3. Basu Ray I, Mandal S, Chen S, Huynh A, Goyal R, Misra P, Jefferies JL, Heist K, Levine GN, Laborde S, Joshi A, Zhang H, Fraga CH. Network meta-analysis comparing yoga, resistance training and aerobic exercise on heart rate variability in healthy individuals and patients with cardiovascular disease. *J Ayurveda Integr Med*. (Accepted for publication.)
4. Basu-Ray I, Dey PN. Yoga and the metabolic syndrome: reconsidering ancient practice in an age of pharmacological abundance (editorial). *J Ayurveda Integr Med*. May-June 2026. (In press.)

### ***Selected Abstracts & Scientific Presentations (HRS, ACC, AHA, NASPE)***

1. Basu Ray I. Negative stress TMT and acute coronary syndromes: three analyses — a need for caution! *Cardiological Society of India*, New Delhi, Dec 2001.
2. Basu Ray I, Reddy VY, Malchano ZY, Abbara S, Wallace D, Grossman J, Houghtaling C, McPherson CD, Ruskin JN, Shiraj KM. Use of a remote magnetically guided catheter for ventricular electroanatomical substrate mapping and ablation in a porcine model of healed myocardial infarction. *NASPE*, San Francisco, CA, May 2004.
3. Basu Ray I, Dumoulin CL. Self-expandable intravascular MR imaging and MR tracking catheters. 13th Meeting of the International Society of Magnetic Resonance in Medicine, Miami, FL, May 2005.
4. Basu Ray I, Wallace D, Grossman J, Houghtaling C, McPherson CD, Ruskin JN. Porcine pulmonary vein ablation using a novel robotic catheter control system and real-time integration of CT imaging with electroanatomical mapping. *Heart Rhythm*. 2005 May;2(5):S121.
5. Basu Ray I, Houghtaling C, McPherson CD, Kastelein N, Ruskin JN, Reddy VY. Integration of MR imaging with electroanatomical mapping to facilitate epicardial ventricular mapping and ablation: a feasibility study in a porcine model of healed myocardial infarction. *Heart Rhythm*. 2006 May;2(5).
6. Basu Ray I, Jay Kuo CC. Joint reconstruction and registration using level sets: application to atrial fibrillation ablation. *Frontiers in the Convergence of Bioscience and Information Technologies*, Jeju, South Korea, Oct 2007.
7. Basu Ray I, Bronson RT, Cao H, Paul S, Puryear HA, Carrozza JP, Sellke FW, Zimetbaum PJ, Rosenzweig A, Josephson ME. Novel electrode-tissue contact assessment techniques to optimize radiofrequency catheter ablation (RFCA). *Heart Rhythm*. 2007.
8. Basu Ray I, Katikitala K, Lam W, Mathuria N, Seger J, Nazeri A, Lopez JA, Rojas-Delgado F, Sherman P, Saeed M, Cheng J. TV-ICD and S-ICD have a similar incidence of inappropriate therapies — first meta-analysis comparing existing case-control studies. *HRS*. 2016; 17-A-10878-HRS.
9. Basu Ray I, Jia X, Liu J, Katikitala K, Lam W, Mathuria N, Razavi M, Giorgberidze I, Afshar H, Saeed M, Cheng J, Rasekh A, Korrane K. Cardiac plug and Watchman devices: meta-analysis of two popular left atrial appendage closure systems for stroke prevention in atrial fibrillation. *HRS*. 2016; 17-A-9371-HRS.
10. Basu Ray I, Pujara D, Greet B, Burkland D, Wadehra D, Katikitala K, Pollet M, Sudhakar D, Civitello A, Costello B, Abdallah A, Postalian A, Hale Z, Jenny B, Lai C, Igbalode K, Ono M, Morgan J, Simpson L, Rojas-Delgado F, Cheng J, Mathuria N. Successful catheter ablation of ventricular tachycardia in patients with structural heart disease who undergo subsequent LVAD implantation improves post-LVAD survival. *HRS*. 2016; 17-A-12387-HRS.
11. Basu Ray I, Jia X, Katikitala K, Lam W, Molina JE, Razavi M, Lopez JA, Seger J, Nazeri A, Rasekh A, Saeed M. Infectious complication rates for S-ICD and TV-ICD are similar; however, they differ in their nature. *HRS*. 2016; 17-A-10709-HRS.
12. Basu Ray I, Liu J, Katikitala K, Lam W, Razavi M, Giorgberidze I, Afshar H, Saeed M, Cheng J, Rasekh A. Efficacy and safety of the Amplatzer cardiac plug versus the Watchman device: a systematic review and appraisal of pooled data. *HRS*. 2016; 17-A-10599-HRS.
13. Basu Ray I, Khalid K, Khan K, Monlezun D, Katikitala K, Safavi-Naeini P, Lam W, Rasekh A, Cheng J, Saeed M. Anti-arrhythmic effects seen with the Lariat are not associated with reverse remodeling. *HRS*. 2016; 17-A-10674-HRS.
14. Basu Ray I, Middour T, Schwing G, Monlezun D, Boja H, Deere B, Morris S, Boulad A, LeJemtel T, Cassidy M, Martin-Schild S. Significant diastolic dysfunction is associated with cardioembolic stroke independent of history of atrial fibrillation. *AHA*. 2016; 2016-SS-A-19097-AHA.

15. Basu Ray I, Schwing G, Middour T, Monlezun D, Katikitala K, Koranne K, Cassidy M, Martin-Schild S, Lam W, Afshar H, Giorgberidze I, Cheng J, Saeed M. Significant diastolic dysfunction is associated with cardioembolic stroke independent of history of atrial fibrillation. *ACC*. 2016; 17-A-10684-ACC.
16. Basu Ray I, Burkland D, Pollet M, Sudhakar D, Rojas F, Costello B, Postalian A, Hale Z, Jenny B, Lai C, Igbalode K, Wadehra D, Katikitala K, Ono M, Morgan J, Simpson L, Civitello A, Cheng J, Mathuria N. Presence of an ICD in VAD patients with pre-VAD-implant ventricular tachycardia is associated with increased survival. *Heart Rhythm*. 2017 Apr 30;14(5 Suppl):A1-S668.
17. Basu Ray I, Burkland D, Pollet M, Sudhakar D, Rojas F, Costello B, Postalian A, Hale Z, Jenny B, Lai C, Igbalode K, Wadehra D, Katikitala K, Ono M, Morgan J, Simpson L, Civitello A, Cheng J, Mathuria N. Prevalence and significance of ventricular arrhythmias prior to ventricular assist device implantation: a fifteen-year institutional experience. *Heart Rhythm*. 2017 Apr 30;14(5 Suppl):A1-S668.
18. Basu Ray I, Burkland D, Pollet M, Sudhakar D, Rojas F, Costello B, Postalian A, Hale Z, Jenny B, Lai C, Igbalode K, Wadehra D, Katikitala K, Ono M, Morgan J, Simpson L, Civitello A, Cheng J, Mathuria N. Ventricular tachycardia early after implantation of a ventricular assist device is associated with short- and long-term mortality: a fifteen-year institutional experience. *Heart Rhythm*. 2017 Apr 30;14(5 Suppl):A1-S668.
19. Basu Ray I, Pujara D, Greet B, Morgan J, Simpson L, Rojas-Delgado F, Cheng J, Mathuria N. Successful catheter ablation of ventricular tachycardia in patients with structural heart disease who undergo subsequent LVAD implantation improves post-LVAD survival. *Heart Rhythm*. 2017 Apr 30;14(5 Suppl):A1-S668.
20. Basu Ray I, Schwing G, Monlezun D, Cassidy M, et al. Complex left atrial appendage morphology is an independent risk factor for cryptogenic stroke. *JACC Cardiovasc Interv*. 2017 Feb 13;10(3):S75-S76.

### **Invited Columns in Peer-Reviewed Journals**

1. Basu Ray I. Latest updates in cardiac electrophysiology. *Indian J Pacing Electrophysiol*. 2002;3(4):273.
2. Deitelzweig S, Basu Ray I, Carter W, Lee D, Meadows R, Vuppala S, Wharton F. In literature: research you need to know. *The Hospitalist*. Jan 2011.
3. Basu Ray I. Advancing evidence-based practice: a quarterly compilation of research updates most likely to change clinical practice. *Ochsner J*. Fall 2012;12(3):185-187.
4. Glickman-Simon R, Basu Ray I. Evidence-based integrative medicine updates. *Explore (NY)*. Elsevier; Sept 2012.
5. Basu Ray I. Advancing evidence-based practice: a quarterly compilation of research updates most likely to change clinical practice. *Ochsner J*. 2014 Sep;14(3):312-315. PMID: 25249793.
6. Basu Ray I. Advancing evidence-based practice: a quarterly compilation of research updates most likely to change clinical practice. *Ochsner J*. 2014 Jul;14(2):148-153. PMID: 24940118.

### **Invited Academic Leadership & Presentations**

- **Program Director**, World's First Conference on the Role of Meditation in Cardiovascular Diseases — AIIMS Rishikesh, India; attended by over one thousand physicians worldwide.
- **Program Director**, International Yoga e-Conference 2021 — a global virtual conference with 100+ faculty across 50+ sessions, including experts from Harvard, MD Anderson, PGI-Chandigarh, and AIIMS New Delhi.
- **Guest of Honor / Valedictory Address**, 17th Annual Convocation of Swami Vivekananda Yoga AnusandhanaSamsthana, Bangalore (January 2020).

### **Popular & Editorial Writing**

Author of more than 200 articles on health policy, medical education, and related topics. Editorial and column contributions to *The Times of India*, *The Indian Express*, *The Hindustan Times*, *The Telegraph*, *The Statesman*, *Ananda Bazar Patrika*, *Bartaman*, *The Pioneer*, *the Huffington Post*, and others.

### **Books & Textbooks**

#### ***Clinical Cardiology, 2nd Edition (2003, 2016)***

*Paras Medical Publisher. Editor: Dr. Indranill Basu-Ray.*

Authored by more than forty cardiovascular physicians worldwide, this case-based text covers critical cardiovascular topics and is a widely used manual for house staff, residents, primary care and internal medicine physicians, and cardiologists.

***The Principles and Practice of Yoga in Cardiovascular Medicine (2022)***

*Springer Nature. Editor-in-Chief: Dr. Indranill Basu-Ray.*

The world's first reference book on the role of yoga in cardiovascular disease, detailing epidemiology, physiology, pathology, prevention, and management based on current scientific understanding. Seventy-five experts across four continents contributed, including a special chapter on yoga in the prevention of cardiovascular complications of COVID-19.

***Fundamentals of Cardiac Electrophysiology (2024)***

*Elsevier (in preparation). Editor: Dr. Indranill Basu-Ray.*

A multi-authored text — the first book dedicated to explaining the concepts of cardiac electrophysiology for cardiologists.

***Yoga in Cardiovascular Disease and Cardiac Rehabilitation (2023)***

*Elsevier (in preparation). Editor: Dr. Indranill Basu-Ray.*

Featuring over fifty eminent physician-scientists worldwide; among the first medical texts on the use of yoga in medicine, with all chapters co-authored.