

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

2020 Abstracts	<p>Abdelaziz H, Megaly M, Debski M, Rahbi H, Kamal D, Saad M, Wiper A, More R, Roberts D. Percutaneous or surgical access in transfemoral transcatheter aortic valve implantation: systematic review and updated meta-analysis. ACC 2020. March 28th, 2020.</p> <p>Abraham B, Megaly M, Sous M, Louka B, Fraser R, Szpunar S, Goldsmith S, Simegn M, Bart B, Azzo ZR, Mesiha N. Impact of torsemide on cardiac remodeling and renin-angiotensin-aldosterone system in heart failure patients. ACC 2020. March 28th, 2020.</p> <p>Ahmed A, Cavalcante J, Gössl M, Ukaigwe A, Schmidt CW, Du Y, Lopes B, Bae R, Sorajja P. Prevalence and prognosis of mitral disease due to mitral annular calcification. Presented at ESC Congress 2020 ePoster session. August 28th 2020.</p> <p>Buda K, Megaly M, Omer M, Xenogiannis I, Brilakis E. Use of radiation protection measures in live percutaneous coronary interventions cases in interventional scientific meetings. ACC 2020. March 28th, 2020.</p> <p>Elbadawi A, Elgendy I, Omer M, Ogunbayo G, Paniagua D, Jneid H. Temporal trends and outcomes of elective thoracic aortic aneurysm repair versus aneurysm related acute aortic syndromes, insights from a national database. ACC 2020. March 28th, 2020.</p> <p>Elbadawi A, Elzeneini M, Elgendy I, Omer M, Ogunbayo G, Megaly M, Jneid H. Temporal trends and outcomes of coronary artery bypass grafting after acute st-elevation myocardial infarction. Presented virtually at AHA 2020.</p> <p>Elbadawi A, Mahmoud A, Elgendy I, Omer M, Ogunbayo G, Denktas A, Paniagua D, Jneid H. Temporal trends and outcomes of elective aortic repair and acute aortic syndromes in patients with bicuspid aortic valves. ACC 2020. March 28th, 2020.</p> <p>Karacsonyi J, Schmidt C, Garcia S, Henry T, Rangan B, Nikolakopoulos I, Vemmou E, Xenogiannis I, Goessl M, Sorajja P, Chavez I, Mooney M, Poulouse A, Traverse J, Wang Y, Baran K, Bradley S, Megaly M, Garberich R, Ungi I, Burke M.N, Brilakis E. Outcomes of patients with st elevation myocardial infarction and history of prior coronary artery bypass graft surgery. Presented virtually at AHA 2020.</p> <p>Megaly M, Abraham B, Omer M, Elbadawi A, Saad M, Mentias A, Xenogiannis I, Narayanan M, Banerjee S, Alaswad K, Rinfret S, Garcia S, Pershad A, Azzalini L, Knaapen P, Tscuhikane E, Gershlick A, Burke MN, Brilakis E. Outcomes of chronic total occlusion percutaneous coronary intervention in patients with prior coronary artery bypass graft surgery. ACC 2020. March 28th, 2020.</p> <p>Megaly M, Brilakis E, Garcia S, Burke MN, Cavalcante J. Impact of chronic total occlusion revascularization on left ventricular function assessed by cardiac magnetic resonance. Presented virtually at TCT 2020.</p>
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Megaly M, Brilakis E, **Omer M**, Alexander J, Titus J, Garcia S. Outcomes with MANTA device for large-bore access closure after transcatheter aortic valve replacement. Presented virtually at TCT 2020.

Megaly M, Garcia S, Sorajja P, Lesser J, Goessl M, Cavalcante J. cardiac amyloidosis is underdiagnosed in patients undergoing transcatheter aortic valve replacement. Presented virtually at TCT 2020.

Megaly M, Glogoza M, Burke MN, Brilakis E. Use of intravascular imaging in patients with st-segment elevation acute myocardial infarction. Presented virtually at TCT 2020.

Megaly M, Glogoza M, Xenogiannis I, Vemmou E, Nikolakopoulos I, Willson L, Monyak DJ, Sullivan P, Stanberry L, Sorajja P, Chavez I, Mooney MR, Traverse J, Wang Y, Garcia S, Poulouse A, Burke MN, Brilakis E. Outcomes of intravascular brachytherapy in recurrent drug-eluting in-stent restenosis. ACC 2020. March 28th, 2020.

Megaly M, Han K, Mudy K, **Omer M**, Garcia S. Outcomes of percutaneous and surgical pulmonary valve implantation. Presented virtually at TCT 2020.

Megaly M, Sorajja P, Cavalcante J, Garcia S. Ischemic stroke with cerebral protection system during transcatheter aortic valve replacement. Presented virtually at TCT October 15th, 2020.

Megaly M, Vemmou E, Nikolakopoulos I, Karacsonyi J, Garcia S, Burke MN, Brilakis E. Complications and failure modes of coronary microcatheters. insights from the manufacturer and user facility device experience (maude) database. Presented at virtually at TCT 2020.

Nicolakopoulos I, Karpaliotis D, Choi J, Khatri J, Doing A, Dattilo P, Rafeh NA, Maalouf a, Jaoudeh FA, Aguilar HT, Shad A, Moses J, Lembo NJ, Kirtane A, Parikh M, Ali Z, **Megaly M**, Vemmou E, Xenogiannis I, Rangan B, Abdullah S, Banerjee S, Garcia S, Burke MN, Brilakis E. Follow-up outcomes of chronic total occlusion percutaneous coronary interventions in patients with and without prior coronary artery bypass graft surgery: insights from the PROGRESS-CTO Registry. ACC 2020. March 29th, 2020.

Nicolakopoulos I, Patel T, Sheikh A, Jaber WA, Samady H, Khatri J, Yeh RW, Aguilar H, Koutouzis M, Tsaifoutis I, Jaffer F, Doing A, Dattilo P, Uretsky BF, Toma C, Elbarouni B, **Omer M**, Vemmou E, Xenogiannis I, Rangan B, Abdullah S, Banerjee S, Garcia S, Burke MN, Brilakis E. Distal versus proximal transradial access in chronic total occlusion percutaneous coronary intervention: procedural and long-term outcomes from the progress CTO registry. ACC 2020. March 28th, 2020.

Omer M, Garberich R, Sharkey SW, Brilakis E, Sorajja P, Henry TD, Gossel M, Schmidt C, Chavez I, Mooney M, Burke MN, **Megaly M**, Hryniewicz K, Wang Y,

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

	<p>Traverse J, Garcia S. Clinical characteristics and outcomes of st-segment elevation myocardial infarction patients with cardiogenic shock and cardiac arrest. ACC 2020. March 28th, 2020.</p> <p>Qarajeh R, Omer M, Brandt H, Safley D, Borkon AM, Everly M, Fendler T, Kao A, Khumri T, Lawhorn S, Magalski A, Nassif M, Vodnala D, Austin B, Sperry B. Association between donor transmitted atherosclerosis and cardiovascular outcomes after heart transplant. ACC 2020. March 29th, 2020.</p> <p>Tulai I, Harris K, Askew J, Sengupta J, Cavalcante JL, Orlandi Q. Mitral valve prolapse: when does it stop being benign? ACC 2020. March 29th, 2020.</p> <p>Vemmou E, Khatri J, Doing A, Dattilo P, Toma C, Jaffer F, Karpaliotis D, Sheikh A, Samady H, Alaswad K, Chandwaney R, Garcia S, Megaly M, Omer M, Stanberry L, Xenogiannis I, Nikolakopoulos I, Gkargkoulas F, Jaber WA, Patel T, Jefferson B, Rangan B, Burke MN, Banerjee S, Brilakis E. Intravascular ultrasound use for stent optimization and 1-year outcomes in patients undergoing CTO-PCI: insights from the PROGRESS-CTO registry. ACC 2020. March 28th, 2020.</p> <p>Xenogiannis I, Karpaliotis D, Krestyaninov O, Khelimskii D, Khatri J, Alaswad K, Doing A, Dattilo P, Jaffer F, Patel MP, Mahmid E, Jaber W, Samady H, Chandwaney R, Gkargkoulas F, Ali Z, Megaly M, Omer M, Vemmou E, Nikolakopoulos I, Garberich R, Rangan B, Abdullah S, Burke MN, Brilakis E. Follow-up outcomes after chronic total occlusion percutaneous coronary intervention: does successful revascularization matter? ACC 2020. March 29th, 2020.</p>
<p>2020 Publications</p>	<p>Abdelaziz, H. K., Megaly, M., Debski, M., Rahbi, H., Kamal, D., Saad, M., Wiper, A., More, R., & Roberts, D. H. (2020). Meta-Analysis Comparing Percutaneous to Surgical Access in Trans-Femoral Transcatheter Aortic Valve Implantation. The American journal of cardiology, 125(8), 1239–1248. https://doi.org/10.1016/j.amjcard.2020.01.021</p> <p>Abraham, B., Megaly, M., Sous, M., Fransawyalkomos, M., Saad, M., Fraser, R., Topf, J., Goldsmith, S., Simegn, M., Bart, B., Azzo, Z., Mesiha, N., & Sharma, R. (2020). Meta-Analysis Comparing Torsemide Versus Furosemide in Patients With Heart Failure. The American journal of cardiology, 125(1), 92–99. https://doi.org/10.1016/j.amjcard.2019.09.039</p> <p>Abraham, B., Sedhom, R., Megaly, M., Saad, M., Elbadawi, A., Elgendy, I. Y., Omer, M., Narayanan, M. A., Mena-Hurtado, C., Pershad, A., Shamoun, F., Lalonde, T., & Attallah, A. (2021). Outcomes with catheter-directed thrombolysis compared with anticoagulation alone in patients with acute deep venous thrombosis. Catheterization and cardiovascular interventions: official journal of the Society for Cardiac Angiography & Interventions, 97(1), E61–E70. https://doi.org/10.1002/ccd.29226</p>

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Anantha-Narayanan, M., Kandasamy, V. V., Reddy, Y. N., **Megaly, M.**, Baskaran, J., Pershad, A., Suri, R. M., & Garcia, S. (2020). Low-Risk Transcatheter Versus Surgical Aortic Valve Replacement - An Updated Meta-Analysis of Randomized Controlled Trials. *Cardiovascular revascularization medicine: including molecular interventions*, 21(4), 441–452. <https://doi.org/10.1016/j.carrev.2019.08.003>

Chugh, Y., Bavishi, C., Mojadidi, M. K., Elgendy, I. Y., Faillace, R. T., Brilakis, E. S., Tamis-Holland, J., Mamas, M., & Chugh, S. K. (2020). Safety of transradial access compared to transfemoral access with hemostatic devices (vessel plugs and suture devices) after percutaneous coronary interventions: A systematic review and meta-analysis. *Catheterization and cardiovascular interventions : official journal of the Society for Cardiac Angiography & Interventions*, 96(2), 285–295. <https://doi.org/10.1002/ccd.29061>

Chugh, Y., Chugh, S., & Chugh, S. K. (2020). Post-the SAFARI STEMI study: Is there still a debate on radial vs. femoral access in STEMI?. *Indian heart journal*, 72(5), 466–468. <https://doi.org/10.1016/j.ihj.2020.08.006>

Buda, K. G., **Megaly, M. S.**, **Omer, M.**, Xenogiannis, I., & Brilakis, E. S. (2020). Use of Radiation Protection Measures in Live Percutaneous Coronary Interventions Cases at Interventional Scientific Meetings. *JACC. Cardiovascular interventions*, 13(7), 905–906. <https://doi.org/10.1016/j.jcin.2019.11.036>

Elbadawi, A., Elgendy, I. Y., **Megaly, M.**, Elzeneini, M., Mentias, A., **Omer, M.**, Ogunbayo, G., Rai, D., Drachman, D. E., & Shishehbor, M. H. (2020). Temporal trends and outcomes of critical limb ischemia among patients with chronic kidney disease. *Vascular medicine (London, England)*, 1358863X20951270. Advance online publication. <https://doi.org/10.1177/1358863X20951270>

Elbadawi, A., Elgendy, I. Y., **Megaly, M.**, Ugwu, J., Shahin, H. I., Al-Azizi, K., Garcia, S., Abbott, J. D., Gafoor, S., Kleiman, N. S., & Goel, S. S. (2021). Trends and Outcomes of Transcatheter Aortic Valve Implantation Among Solid Organ Transplant Recipients. *The American journal of cardiology*, 138, 122–124. <https://doi.org/10.1016/j.amjcard.2020.09.052>

Elbadawi, A., Elgendy, I. Y., Mohamed, A. H., Almahmoud, M. F., **Omer, M.**, Abuzaid, A., Mahmoud, K., Ogunbayo, G. O., Denktas, A., Paniagua, D., Banerjee, S., & Jneid, H. (2020). Temporal Trends and Outcomes of Transcatheter Mitral Valve Repair and Surgical Mitral Valve Intervention. *Cardiovascular revascularization medicine : including molecular interventions*, 21(12), 1560–1566. <https://doi.org/10.1016/j.carrev.2020.05.021>

Elbadawi, A., Hamed, M., Elgendy, I. Y., **Omer, M. A.**, Ogunbayo, G. O., **Megaly, M.**, Denktas, A., Ghanta, R., Jimenez, E., Brilakis, E., & Jneid, H. (2020). Outcomes of Reoperative Coronary Artery Bypass Graft Surgery in the United States. *Journal of the American Heart Association*, 9(15), e016282. <https://doi.org/10.1161/JAHA.120.016282>

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Elbadawi, A., Mahmoud, K., Elgendy, I. Y., Elzeneini, M., **Megaly, M.**, Ogunbayo, G., **Omer, M. A.**, Albert, M., Kapadia, S., & Jneid, H. (2020). Racial Disparities in the Utilization and Outcomes of Transcatheter Mitral Valve Repair: Insights From a National Database. *Cardiovascular revascularization medicine : including molecular interventions*, 21(11), 1425–1430.

<https://doi.org/10.1016/j.carrev.2020.04.034>

Elgendy, I. Y., Elbadawi, A., Sardar, P., Kolte, D., **Omer, M. A.**, Mahmoud, A. N., Jneid, H., Keeley, E. C., & Bhatt, D. L. (2020). Palliative Care Use in Patients With Acute Myocardial Infarction. *Journal of the American College of Cardiology*, 75(1), 113–117. <https://doi.org/10.1016/j.jacc.2019.11.009>

Garcia S, Stanberry L, Schmidt C, Sharkey S, **Megaly M**, Albaghdadi M, Meraj PM, Garberich R, Jaffer FA, Schmidt AC, Dixon SR, Rade JJ, Smith T, Tannenbaum M, Chambers J, Aguirre F, Huang PP, Kumbhani DJ, Koshy T, Feldman DN, Giri J, Kaul P, Thompson C, Khalili H, Maini B, Nayak KR, Cohen MG, Bangalore S, Shah B, Henry T. Impact of COVID-19 pandemic on STEMI care: An expanded analysis from the United States. *Catheter Cardiovasc Interv*. 2020;1–6. <https://doi.org/10.1002/ccd.29154>

Hamandi, M., Saad, M., Hasan, R., **Megaly, M.**, Abbott, J. D., Dib, C., Szerlip, M., Potluri, S., Lotfi, A., Kiemeneij, F., & Al-Azizi, K. M. (2020). Distal Versus Conventional Transradial Artery Access for Coronary Angiography and Intervention: A Meta-Analysis. *Cardiovascular revascularization medicine : including molecular interventions*, 21(10), 1209–1213.

<https://doi.org/10.1016/j.carrev.2020.03.020>

Hammadah, M., Ponce, C., Sorajja, P., Cavalcante, J. L., Garcia, S., & Gössl, M. (2020). Point-of-care ultrasound: Closing guideline gaps in screening for valvular heart disease. *Clinical cardiology*, 43(12), 1368–1375. <https://doi.org/10.1002/clc.23499>

Hashimoto, G., Cavalcante, J. L., Mooney, M. R., Burns, M. R., **Ukaigwe, A. C.**, & Garcia, S. (2020). Assessment of aortic bioprosthetic valve fracture by Computed Tomography Angiography. *Journal of cardiovascular computed tomography*, S1934-5925(20)30439-1. Advance online publication. <https://doi.org/10.1016/j.jcct.2020.09.002>

Hryniewicz, K., **Hart, M.**, Raile, D., Wang, Y., Mooney, M., Mudy, K., Eckman, P. M., Samara, M. A., Traverse, J., Sun, B., Williams, D. M., Wilson, K. J., Pavlovec, M., Kunz, M., Lyon, D., & Chavez, I. (2020). Multidisciplinary shock team is associated with improved outcomes in patients undergoing ECPR. *The International journal of artificial organs*, 391398820962807. Advance online publication. <https://doi.org/10.1177/0391398820962807>

Jensen, J. C., Dardari, Z. A., Blaha, M. J., White, S., Shaw, L. J., Rumberger, J., Rozanski, A., Berman, D. S., Budoff, M. J., Nasir, K., & Miedema, M. D. (2020). Association of Body Mass Index With Coronary Artery Calcium and Subsequent Cardiovascular Mortality: The Coronary Artery Calcium Consortium. *Circulation*.

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Cardiovascular imaging, 13(7), e009495.

<https://doi.org/10.1161/CIRCIMAGING.119.009495>

Jensen, J., Thaler, C., Saxena, R., Calcaterra, D., Sanchez, J., Orlandi, Q., & Harris, K. M. (2020). Transesophageal Echocardiography to Diagnose Watchman Device Infection. *CASE (Philadelphia, Pa.)*, 4(3), 189–194.

<https://doi.org/10.1016/j.case.2020.01.008>

Liu, J., Elbadawi, A., Elgendy, I. Y., **Megaly, M.**, Ogunbayo, G. O., Krittanawong, C., Tamis-Holland, J. E., Ballantyne, C. M., Khalid, M. U., Virani, S., Gulati, M., Albert, M., Bozkurt, B., & Jneid, H. (2020). Age-Stratified Sex Disparities in Care and Outcomes in Patients With ST-Elevation Myocardial Infarction. *The American journal of medicine*, 133(11), 1293–1301.e1.

<https://doi.org/10.1016/j.amjmed.2020.03.059>

Megaly M, Buda KG, Brilakis ES, Pershad A, Louka B, Saad M, Abdelaziz HK, Narayanan MA, Syed M, Mentias A, **Omer M,** Alexander J, Titus J, Garcia S. Outcomes with MANTA Device For Large-Bore Access Closure After Transcatheter Aortic Valve Replacement: A Meta-Analysis. *Structural Heart* (2020) DOI: 10.1080/24748706.2020.1809755

Megaly, M., & Brilakis, E. S. (2020). Primary Orbital Atherectomy for Treating a Heavily Calcified Balloon-Uncrossable Lesion. *Cardiovascular revascularization medicine : including molecular interventions*, 21(11S), 96–99.

<https://doi.org/10.1016/j.carrev.2020.02.001>

Megaly, M., & Brilakis, E. S. (2020). Telesupported procedures: when and how. *Catheterization and cardiovascular interventions : official journal of the Society for Cardiac Angiography & Interventions*, 95(5), 911–913.

<https://doi.org/10.1002/ccd.28878>

Megaly, M., Abraham, B., Abdelsalam, M., Saad, M., **Omer, M.,** Elbadawi, A., Mentias, A., Narayanan, M. A., Gafoor, S., Brilakis, E. S., Goessl, M., Cavalcante, J. L., Garcia, S., Kapadia, S., Pershad, A., Sorajja, P., & Sengupta, J. (2020). Short- and Long-Term Outcomes in Patients With New-Onset Persistent Left Bundle Branch Block After Transcatheter Aortic Valve Replacement.

Cardiovascular revascularization medicine : including molecular interventions, 21(10), 1299–1304. <https://doi.org/10.1016/j.carrev.2020.03.009>

Megaly, M., Abraham, B., Pershad, A., Rinfret, S., Alaswad, K., Garcia, S., Azzalini, L., Gershlick, A., Burke, M. N., & Brilakis, E. S. (2020). Outcomes of Chronic Total Occlusion Percutaneous Coronary Intervention in Patients With Prior Bypass Surgery. *JACC. Cardiovascular interventions*, 13(7), 900–902.

<https://doi.org/10.1016/j.jcin.2019.11.033>

Megaly, M., Brilakis, E. S., Abdelsalam, M., Pershad, A., Saad, M., Garcia, S., Burke, M. N., Schelbert, E. B., Bucciarelli-Ducci, C., & Cavalcante, J. L. (2020). Impact of Chronic Total Occlusion Revascularization on Left Ventricular Function Assessed by Cardiac Magnetic Resonance. *JACC. Cardiovascular imaging*,

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S1936-878X(20)30924-4. Advance online publication.
<https://doi.org/10.1016/j.jcmg.2020.10.012>

Megaly, M., Buda, K. G., Xenogiannis, I., Vemmou, E., Nikolakopoulos, I., Saad, M., Rinfret, S., Abbott, J. D., Aronow, H. D., Garcia, S., Pershad, A., Burke, M. N., & Brilakis, E. S. (2020). Systematic review and meta-analysis of short-term outcomes with drug-coated balloons vs. stenting in acute myocardial infarction. *Cardiovascular intervention and therapeutics*, 10.1007/s12928-020-00713-y. Advance online publication. <https://doi.org/10.1007/s12928-020-00713-y>

Megaly, M., Glogoza, M., Xenogiannis, I., Vemmou, E., Nikolakopoulos, I., **Omer, M.**, Saad, M., Willson, L., Monyak, D. J., Sullivan, P., Pershad, A., Chavez, I., Mooney, M., Traverse, J., Wang, Y., Garcia, S., Poulouse, A., Burke, M. N., & Brilakis, E. S. (2020). Coronary intravascular brachytherapy for recurrent coronary drug-eluting in-stent restenosis: A systematic review and meta-analysis. *Cardiovascular revascularization medicine : including molecular interventions*, S1553-8389(20)30504-2. Advance online publication. <https://doi.org/10.1016/j.carrev.2020.08.035>

Megaly, M., Glogoza, M., Xenogiannis, I., Vemmou, E., Nikolakopoulos, I., **Omer, M.**, Willson, L., Monyak, D. J., Sullivan, P., Stanberry, L., Chavez, I., Mooney, M., Traverse, J., Wang, Y., Garcia, S., Poulouse, A., Burke, M. N., & Brilakis, E. S. (2020). Outcomes with combined laser atherectomy and intravascular brachytherapy in recurrent drug-eluting in-stent restenosis. *Cardiovascular revascularization medicine : including molecular interventions*, S1553-8389(20)30370-5. Advance online publication. <https://doi.org/10.1016/j.carrev.2020.06.019>

Megaly, M., Pershad, A., Glogoza, M., Elbadawi, A., **Omer, M.**, Saad, M., Mentias, A., Elgendy, I., Burke, M. N., Capodanno, D., & Brilakis, E. S. (2020). Use of intravascular imaging in patients with ST-segment elevation acute myocardial infarction. *Cardiovascular revascularization medicine : including molecular interventions*, S1553-8389(20)30582-0. Advance online publication. <https://doi.org/10.1016/j.carrev.2020.09.032>

Megaly, M., Sedhom, R., Pershad, A., Vemmou, E., Nikolakopoulos, I., Karacsonyi, J., Saad, M., Mentias, A., Garcia, S., Karpaliotis, D., Egred, M., Burke, M. N., & Brilakis, E. S. (2020). Complications and failure modes of coronary microcatheters: Insights from the manufacturer and user facility device experience (MAUDE) database. *EuroIntervention : journal of EuroPCR in collaboration with the Working Group on Interventional Cardiology of the European Society of Cardiology*, EIJ-D-20-00572. Advance online publication. <https://doi.org/10.4244/EIJ-D-20-00572>

Megaly, M., Sorajja, P., Cavalcante, J. L., Pershad, A., Gössl, M., Abraham, B., **Omer, M.**, Elbadawi, A., & Garcia, S. (2020). Ischemic Stroke With Cerebral Protection System During Transcatheter Aortic Valve Replacement. *JACC. Cardiovascular interventions*, 13(18), 2149–2155. <https://doi.org/10.1016/j.jcin.2020.05.039>

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Megaly, M., Xenogiannis, I., Abi Rafeh, N., Karpaliotis, D., Rinfret, S., Yamane, M., Burke, M. N., & Brilakis, E. S. (2020). Retrograde Approach to Chronic Total Occlusion Percutaneous Coronary Intervention. *Circulation. Cardiovascular interventions*, 13(5), e008900.

<https://doi.org/10.1161/CIRCINTERVENTIONS.119.008900>

Omer, M. A., Tyler, J. M., Henry, T. D., Garberich, R., Sharkey, S. W., Schmidt, C. W., Henry, J. T., Eckman, P., **Megaly, M.**, Brilakis, E. S., Chavez, I., Burke, N., Gössl, M., Mooney, M., Sorajja, P., Traverse, J. H., Wang, Y., Hryniewicz, K., & Garcia, S. (2020). Clinical Characteristics and Outcomes of STEMI Patients With Cardiogenic Shock and Cardiac Arrest. *JACC. Cardiovascular interventions*, 13(10), 1211–1219. <https://doi.org/10.1016/j.jcin.2020.04.004>

Omer, M., Xenogiannis, I., & Brilakis, E. S. (2020). Why every interventionalist should know when and how to deploy coils. *International journal of cardiology*, 298, 22–24. <https://doi.org/10.1016/j.ijcard.2019.10.019>

Sedhom, R., Abdelmaseeh, P., **Megaly, M.**, & Asinger, R. (2020). Use of Direct Oral Anticoagulants in the Treatment of Left Ventricular Thrombi: A Systematic Review. *The American journal of medicine*, 133(11), 1266–1273.e6.

<https://doi.org/10.1016/j.amjmed.2020.05.012>

Sidebottom, A. C., Vacquier, M. C., **Jensen, J. C.**, Bradley, S. M., Knickelbine, T., Strauss, C., & Miedema, M. D. (2020). Trends in prevalence of guideline-based use of lipid-lowering therapy in a large health system. *Clinical cardiology*, 43(6), 560–567. <https://doi.org/10.1002/clc.23347>

Ukaigwe, A. C., Sorajja, P., Hashimoto, G., Lopes, B., & Gössl, M. (2020). Challenges of Left Atrial Appendage Occlusion Using a Watchman After Transcatheter Mitral Valve Implantation With a Tendyne. *JACC. Cardiovascular interventions*, 13(14), 1720–1722. <https://doi.org/10.1016/j.jcin.2020.04.026>

Ukaigwe, A., Gössl, M., Cavalcante, J., Olson, S., & Sorajja, P. (2020). Neo-Left Ventricular Outflow Tract Modification With Alcohol Septal Ablation Before Tendyne Transcatheter Mitral Valve Replacement. *JACC. Cardiovascular interventions*, 13(17), 2078–2080. <https://doi.org/10.1016/j.jcin.2020.05.010>

Vemmou, E., Khatri, J., Doing, A. H., Dattilo, P., Toma, C., Sheikh, A., Alaswad, K., Jefferson, B. K., Patel, T. N., Chandwaney, R. H., Jaffer, F. A., Jaber, W., Samady, H., Gkargkoulas, F., Moses, J. W., Lembo, N. J., Kirtane, A. J., Parikh, M., Ali, Z. A., **Megaly, M.**, ... Karpaliotis, D. (2020). Impact of Intravascular Ultrasound Utilization for Stent Optimization on 1-Year Outcomes After Chronic Total Occlusion Percutaneous Coronary Intervention. *The Journal of invasive cardiology*, 32(10), 392–399.

Vemmou, E., Nikolakopoulos, I., Xenogiannis, I., **Megaly, M.**, **Omer, M. A.**, Stanberry, L., Garberich, R., Rangan, B. V., Baran, K. W., Gössl, M., Sorajja, P., Chavez, I., Mooney, M., Traverse, J., Wang, Y., Garcia, S., Poulouse, A., Burke,

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	<p>M. N., & Brilakis, E. S. (2020). The Impact of Novel X-Ray Systems and X-Ray System Optimization on Patient Radiation Dose Administered During Cardiac Catheterization. <i>The Journal of invasive cardiology</i>, 32(6), 218–221.</p> <p>Xenogiannis I, Jaffer FA, Shah A, Omer M, Megaly M, Vemmou E, Nikolakopoulos I, Rangan B, Garcia S, Lesser J, Cavalcante J, Burke MN, Brilakis ES. Computed Tomography Angiography Co-Registration with Real-Time Fluoroscopy in Chronic Total Occlusion Percutaneous Coronary Interventions. <i>EuroIntervention</i>. 2020 Jul 14:EIJ-D-20-00175. doi: 10.4244/EIJ-D-20-00175.</p>
<p>2019 Abstracts</p>	<p>Ali A, Hallak O, Saad M, Omer M, Elbadawi A, Mahmoud A, Narayanan MA, Al-Azizi K, Elgendy I, Megaly M. Impact of Diabetes on the Outcomes of Chronic Total Occlusion Percutaneous Coronary Interventions: An Updated Systematic Review and Meta analysis. Presented at TCT 2019. Sep 27, 2019.</p> <p>Ali A, Megaly MS, Hallak O, Shaker M, Abdelghaffar B, Saad M. Outcomes with intracardiac versus transesophageal echocardiography-guided left atrial appendage occlusion. Poster presentation on May 20 at SCAI 2019, Las Vegas, NV.</p> <p>Elbadawi A, Al-Taweel O, Omer M, Mazhar M, Ogunbayo G, Hamed M, Elgendy I. In Hospital Outcomes of Transcatheter Mitral Valve Repair in Rheumatic Mitral Valve Disease. Presented at TCT 2019. Sep 26, 2019.</p> <p>Elbadawi A, Elgendy I, Al-Taweel O, Mohamed A, Mahmoud K, Omer M, Ogunbayo G, Hamed M, Olorunfemi O, Gilani S, Kumfa P, Khalife W, Rangasetty U. Sex Related Differences in In Hospital Outcomes of Transcatheter Mitral Valve Repair: Perspectives From a National Database. Presented at TCT 2019. Sept 26, 2019.</p> <p>Elbadawi A, Ogunbayo G, Megaly MS, Elgendy IY, Saad M. Comparative Outcomes of Transfemoral Versus Transapical Access for Transcatheter Aortic Valve Replacement in Diabetics. Poster presentation on May 21 at SCAI 2019, Las Vegas, NV.</p> <p>Elbadawi A, Saad M, Elgendy I, Mahmoud K, Barssoum K, Omer M, Mahmoud A, Hamed M, Ogunbayo G, Khalife W, Jneid H. Comparative Outcomes of Transcatheter Versus Surgical Aortic Valve Replacement in Patients With Old Infarct. Presented at TCT 2019. Sep 28, 2019.</p> <p>Megaly M, Ali A, Saad M, Omer M, Xenogiannis I, Werner G, Karpaliotis D, Russo J, Yamane M, Garbo R, Gagnor A, Ungi I, Rinfret S, Pershad A, Wojcik J, Garcia S, Sianos G, Mashayekhi K, Galassi A, Burke MN, Brilakis E. Outcomes with retrograde vs. antegrade chronic total occlusion revascularization. Presented at TCT 2019. Sept 25 2019.</p> <p>Megaly M, Brilakis E. Impella supported Left Main PCI in a Patient with RCA CTO. Presented at TCT 2019. Sep 28, 2019.</p>

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Megaly M, Cavalcante J, Sorajja P, Garcia S. Percutaneous closure of a post TAVR Aorta RV fistula. Presented at TCT 2019. Sep 28 ,2019.

Megaly M, Gössl M, Sorajja P, Anzia LE, Henstrom J, Morley P, Garberich R, Bradley SM, Tang CY, Abdelhadi RH, Pederson W, Poulouse A, Gornick CC, Lesser J, Garcia S, Sengupta J. Outcomes After Pacemaker Implantation in Patients With New Onset Left Bundle Branch Block After Transcatheter Aortic Valve Replacement. Presented at TCT 2019. September 26, 2019.

Megaly M. Impact of Diabetes on the Outcomes of Chronic Total Occlusion Percutaneous Coronary Interventions: An Updated Systematic Review and Meta-Analysis. Presented at TCT 2019. Sep 14, 2019.

Megaly M, Khalil C, Saad M, Xenogiannis I, **Omer M**, Narayanan MA, Pershad A, Garcia S, Seto A, Burke MN, Brilakis E. Outcomes With Deferred vs. Performed Revascularization of Coronary Lesions With Fractional Flow Reserve Values in the Grey Zone. Presented at TCT 2019. Sept 26, 2019.

Megaly MS, Xenogiannis I. Coronary Challenging Case Competition - Semifinals 3. Session at CVI conference, July 18, 2019.

Megaly MS. Coronary Challenging Case Competition - Semifinals 2. Session at CVI conference, July 18, 2019.

Megaly, M. Tips and Tricks in Left Main and Bifurcations: The Sequel; Case 5: Distal Left Main PCI, DK-Crush Troubleshooting. Session at SCAI 2019, Las Vegas, NV.

Megaly MS, Abraham B, Saad M, Mekaiel A, Soukas PA, Banerjee S, Shishehbor M. Outcomes with Cilostazol After Endovascular Therapy of Peripheral Artery Disease. Poster presentation on May 20 at SCAI 2019, Las Vegas, NV.

Megaly MS, Karatasakis A, Abraham B, **Jensen J**, **Omer MA**, Elbadawi A, Sandoval YP, Shishehbor M, Banerjee S, Alaswad K, Rinfret S, Burke MN, Brilakis ES, Saad M. Radial versus Femoral Approach in Chronic Total Occlusion Percutaneous Coronary Intervention: A Systematic Review and Meta-Analysis. Poster presentation on May 22 at SCAI 2019. Las Vegas, NV.

Narayanan MA, Kandasamy VV, Reddy YNV, **Megaly M**, Baskaran J, Pershad A, Suri R, Garcia S. Low risk Transcatheter versus Surgical Aortic Valve Replacement: A Meta analysis of Randomized Controlled Trials. Presented at TCT 2019. Sep 28, 2019.

Narayanan MA, Malik U, Mbai M, **Megaly M**, Florea V, **Sharma A**, Cavalcante J, Garcia S. Impact of Diastolic Dysfunction on Mortality and Quality of Life After Transcatheter Aortic Valve Replacement. Presented at TCT 2019. Sep 26, 2019.

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Narayanan MA, Malik U, **Megaly MS**, Mbai M, Garcia S. Diastolic Dysfunction and Long-Term Mortality After Transcatheter Aortic Valve Replacement. Poster presentation on May 21 at SCAI 2019, Las Vegas, Nevada.

Omer M, Brilakis E, Kennedy KF, Elgendy I, Jones P, Enriquez JR, Arnold SV, Chan PS, Spertus J. Culprit Vessel Only Versus Multivessel Percutaneous Coronary Intervention in Patients With NSTEMI and Cardiogenic Shock: Insights From the NCDR CathPCI Registry. Presented at TCT 2019. Sep 27, 2019.

Omer M, Elgendy I, Elbadawi A, **Megaly M**, Enriquez JR, Jneid H, Sandoval Y, Brilakis R. In Hospital Outcomes of ST Segment Elevation Myocardial Infarction Involving the Left Main Coronary Artery: Insights from the National Inpatient Sample. Presented at TCT 2019. Sep 27, 2019.

Saad M, Hamandi M, Hasan R, **Megaly M**, Potluri S, Szerlip M, Abbott JD, Lotfi A, Kiemeneii F, Al-Azizi K. Outcomes of Distal Versus Proximal Trans-Radial Approach for Coronary Angiogram and Percutaneous Coronary Intervention. Presented at TCT 2019. September 28, 2019.

Sharma A, Curry JC, Stanbry LI, Garberich RF, Pavlovec MP, Lesser JR, Manunga JM, Calcaterra D, Titus JM, Mudy K, Harris KM. Adverse outcomes after acute aortic dissection are preceded by change in novel aortic constant on serial imaging. Poster #1237-475 presented at ACC March 17, New Orleans, LA.

Tajti P, Kampaliotis D, Alaswad K, Jaffer FA, Yeh RW, Patel M, Mahmud E, Choi JW, Burke MN, Doing AH, Toma C, Krestyaninov O, Khelinskii D, Potluri S, Kandzari DE, Garcia S, Koutouzis M, Khatri JJ, Jaber W, Jefferson B, Xenogiannis I, **Hall A**, Rangan B, Banerjee S, Brilakis ES. Procedural Outcomes of Percutaneous Coronary Interventions for Chronic Total Occlusions in atients with Low Left Ventricular Ejection Fraction: Insights from the PROGRESS CTO Registry. Presented at ACC March 16-19, New Orleans, LA.

Tajti P, Karpaliotis D, Alaswad K, Jaffer F, Burke MN, Dattilo P, Uretsky B, Holper E, Koutouzis M, Tsiafoutis I, Samady H, Jefferson B, Patel T, Abdullah S, Moses J, Lembo N, Parikh M, Kirtane A, Ali Z, Doshi D, **Hall A**, Xenogiannis I, Rangan B, Banerjee S, Brilakis E. Contemporary outcomes of chronic total occlusion interventions for in-stent restenosis occlusions: update from an international multicenter registry. Poster #1206-068 presented at ACC 2019, New Orleans, LA.

Tajti P, Karpaliotis D, Alaswad K, Jaffer FA, Burke MN, Dattilo P, Uretsky BF, Holper E, Koutouzis M, Tsiafoutis I, Samady H, Jefferson B, Patel T, Abdulla S, Moses JW, Lembo NJ, Parikh M, Kirtane A, Ali Z, Doshi D, Xenogiannis I, **Hall A**, Rangan B, Banerjee S, Brilakis ES. Contemporary Outcomes of Percutaneous Coronary Interventions of Chronic Total Occlusions due to In-stent Restenosis: Update from an International Multicenter Registry. Presented at ACC March 16-19, 2019, New Orleans LA.

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Tajti P, Karpaliotis D, Alaswad K, Jaffer FA, Yeh RW, Patel M, Mahmud E, Choi JW, Burke MN, Toma C, Krestyaninov O, Khelimskii D, Potluri S, Wyman MR, Kandzari DE, Garcia S, Koutouzis M, Khatri JJ, Jaber W, Kirtane AJ, Xenogiannis I, **Hall A**, Rangan B, Banerjee S, Brilakis ES. Impact of Distal Vessel Quality on Acute Procedural Outcomes of Chronic Total Occlusion Percutaneous coronary Interventions: Insights from the PROGRESS CTO Registry. Presented at ACC March 16-19, New Orleans, LA.

Tajti P, Xenogiannis I, **Hall AB**, Burke MN, Chavez IJ, Garcia S, Goessl M, Mooney MR, Poulouse AK, Sorajja P, Wang YL, Vemmou E, Nikolakopoulos I, Morley P, Rangan B, Brilakis ES. Use of the DyeVert System in Chronic Total Occlusion Percutaneous Coronary Intervention. Poster presentation on May 21 at SCAI 2019, Las Vegas, NV.

Thaler C, Jensen J, Sanchez J, Saxena R, Orlandi Q, Calcaterra D, Harris KM. Transesophageal echocardiogram to diagnose Watchman device infection. ASE Scientific sessions 2019

Thaler C, Nowariak M, Schmidt C, Grey E, Henry TD, Sharkey SW. Long-term outcomes after emergency revascularization for spontaneous coronary artery dissection. ACC 2020. March 30th, 2020.

Vemmou E, Nikolakopoulos I, Xenogiannis I, **Hall AB**, Morley P, Rangan B, Brilakis ES. The effect of X-ray system optimization in patient radiation dose during cardiac catheterization. Poster presented May 21 at SCAI 2019, Las Vegas, NV.

Wananu M, Sengupta J, Stanberry L, Hauser R, Abdelhadi R. Short-circuiting and oversensing due to insulation breaches in a dual conductor implantable cardioverter defibrillator lead: implications for patient safety and management. Poster #1268-280 presented March 17, 2019 at ACC, New Orleans, LA.

Xenogiannis I, Alaswad K, Khatri JJ, Choi JW, Doing AH, Dattilo P, Jaffer FA, Uretsky B, Krestyaninov O, Khelimskii D, Patel M, Mahmud E, Potluri S, Koutouzis M, Tsiafoutis I, Jaber W, Samady H, Jefferson BK, Patel T, **Megaly MS, Hall AB**, Vemmou E, Nikolakopoulos I, Rangan BV, Morley PW, Abdullah S, Garcia S, Banerjee S, Burke MN, Brilakis ES. Outcomes of Investment Procedures in Chronic Total Occlusion Interventions. Presented at TCT 2019. Sep 27, 2019.

Xenogiannis I, Burke MN, **Megaly M, Hall AB**, Tajti P, Morley PW, Rangan B, Brilakis ES. Computed tomography angiography co-registration with real-time fluoroscopy in chronic total occlusion percutaneous coronary interventions. Presented March 16, 2019 at ACC, New Orleans, LA.

Xenogiannis I, Gkargkoulas F, Karpaliotis D, Krestyaninov O, Khelimskii D, Jaffer FA, Khatri JJ, Kandzari DE, Wyman RM, Doing AH, Dattilo P, Toma C, Yeh RW, Tamez H, Choi JW, Jaber W, Samady H, Sheikh AM, Potluri S, Patel M, Mahmud E, Elbaruny B, Love MP, Koutouzis M, Tsiafoutis I, Jefferson BK, Patel

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T, Uretsky B, Moses JW, Lembo NJ, Parikh M, Kirtane AJ, Ali ZA, **Hall AB**, **Megaly MS**, Vemmou E, Nikolakopoulos I, Rangan BV, Morley PS, Dargham BB, Abdullah S, Garcia S, Banerjee S, Burke MN, Brilakis ES, Alaswad K. Retrograde Chronic Total Occlusion Percutaneous Coronary Interventions via Saphenous Vein Grafts. Presented at TCT 2019. Sep 27, 2019.

Xenogiannis I, Karpaliotis D, Alaswad K, Basir M, Yeh RW, Tamez H, Patel MP, Mahmud E, Choi JW, Burke MN, Doing A, Dattilo P, Khatri J, Sheikh AM, Malik BA, Greene M, Rafeh NA, Maallouf A, Jaoudeh FA, Moses JW, Lembo NJ, Parikh MA, Kirtane AJ, Ali ZA, Gkargkoulas F, Russo J, Hakemi EU, Tajti P, **Hall AB**, Vemmou E, Nikolakopoulos I, Rangan B, Abdullah S, Banerjee S, Brilakis ES. Left Main Chronic Total Occlusion Percutaneous Coronary Intervention: A Case Series. Poster presentation on May 21 at SCAI 2019, Las Vegas, NV.

Xenogiannis I, Karpaliotis D, Alaswad K, Basir MB, Yeh RW, Tamez H, Patel M, Mahmud E, Choif JW, Burke MN, Doing AH, Dattilo P, Khatri JJ, Sheikh AM, Malik BA, Greene ME, Rafeh NA, Maallouf A, Jaoudeh FA, Moses JW, Lembo NJ, Parikh M, Kirtane AJ, Ali ZA, Gkargkoulas F, Russo J, Hakemi E, Tajti P, **Hall AB**, Vemmou E, Nikolakopoulos I, Rangan BV, Abdullah S, Banerjee S, Brilakis ES. Left Main Chronic Total Occlusion Percutaneous Coronary Intervention: A Case Series. Poster presentation at CVI conference, July 19, 2019.

Xenogiannis I, Karpaliotis D, Alaswad K, Jaffer F, Patel M, Tsiafoutis I, Uretsky B, Burke MN, Smith AJC, Samady H, Jefferson B, Patel T, Holper E, Moses J, Lembo N, Parikh M, Kirtane A, Ali Z, Gargoulas F, Tajti P, **Hall AB**, Rangan B, Abdulla S, Banerjee S, Brilakis ES. Comparison of the incidence, clinical characteristics and procedural outcomes of chronic total occlusion interventions among different target vessels: insights from a contemporary multicenter registry. Poster #1101-008 presented March 16, 2019 at ACC, New Orleans, LA.

Xenogiannis I, Karpaliotis D, Alaswad K, Jaffer FA, Yeh RW, Mahmud E, Choi JW, Burke MN, Doing A, Dattilo P, Toma C, Smith AJC, Uretsky BF, Krestyaninov O, Khelimskii D, Holper EM, Potluri S, Wyman RM, Kandzari DE, Garcia S, Koutouzis M, Tsiafoutis I, Khatri J, Jaber W, Samady H, Jefferson B, Patel T, Sheikh AM, Malik BA, Moses JW, Lembo NJ, Parikh MA, Kirtane AJ, Ali ZA, Gkargkoulas F, Tajti P, **Hall AB**, Vemmou E, Nikolakopoulos I, Rangan B, Abdullah S, Banerjee S, Brilakis ES. The Impact of Peripheral Artery Disease in Chronic Total Occlusion Percutaneous Coronary Intervention. Poster presentation on May 21 at SCAI 2019 in Las Vegas, NV.

Xenogiannis I, Karpaliotis D, Alaswad K, Jaffer FA, Yeh RW, Patel M, Mahmud E, Choi JW, Burke MN, Doing AH, Dattilo P, Toma C, Smith AJC, Uretsky B, Krestyanino O, Khelimskii D, Holper E, Potlur S, Wyman RM, Kandzari DE, Garcia S, Koutouzis M, Tsiafoutis I, Khatri JJ, Jaber W, Samady H, Jefferson BK, Patel T, Sheikh AM, Bilal MA, Moses JW, Lembo NJ, Parikh M, Kirtane AJ, Ali ZA, Gkargkoulas F, Tajti P, **Hall AB**, Vemmou E, Nikolakopoulos I, Rangan BV, Abdullah S, Banerjee S, Brilakis ES. The Impact of Peripheral Artery Disease in Chronic Total Occlusion Percutaneous Coronary Intervention. Poster presentation at CVI conference, July 19, 2019.

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

	<p>Xenogiannis I, Karpaliotis D, Alaswad K, Krestyaninov O, Khelimskii D, Choi J, Jaffer F, Patel M, Mahmud E, Kandzari D, Doing A, Koutouzis M, Burke MN, Khatri J, Toma C, Yeh R, Wyman RM, Jaber W, Patel T, Potluri S, Tajti P, Hall AB, Rangan B, Banerjee S, Brilakis ES. Contemporary outcomes of chronic total occlusion percutaneous coronary interventions: update from the PROGRESS CTO (PROspective Global REgiSty for the Study of Chronic Total Occlusion Intervention) registry. Poster #1101-009 presented March 16, 2019 at ACC, New Orleans, LA.</p> <p>Xenogiannis I, Vemmou E, Gkargkoulas F, Karpaliotis D, Alaswad K, Jaffer FA, Yeh RW, Patel M, Megaly MS, Nikolakopoulos I, Morley PS, Mahmud E, Choi JW, Burke MN, Garcia S, Doing AH, Dattilo P, Toma C, Uretsky B, Krestyaninov O, Khelimskii D, Moses JW, Lembo NJ, Parikh M, Kirtane AJ, Ali ZA, Russo JJ, Hakemi E, Hall AB, Karatasakis A, Danek B, Rangan BV, Abdullah S, Banerjee S, Brilakis ES. Temporal Trends in Chronic Total Occlusion Percutaneous Coronary Interventions: Insights From the PROGRESS CTO Registry. Presented at TCT 2019. Sep 27, 2019.</p>
<p style="text-align: center;">2019 Publications</p>	<p>Abdelaziz HK, Saad M, Pothineni NVK, Megaly M, Potluri R, Saleh M, Kon DLC, Roberts DH, Bhatt DL, Aronow HD, Abbott JD, Mehta JL. Aspirin for Primary Prevention of Cardiovascular Events. <i>J Am Coll Cardiol</i>. 2019 Jun 18;73(23):2915-2929. doi: 10.1016/j.jacc.2019.03.501. PubMed PMID: 31196447.</p> <p>Anantha-Narayanan M, Malik U, Mbai M, Megaly M, Florea V, Sharma A, Cavalcante JL, Garcia S. Impact of diastolic dysfunction on long-term mortality and quality of life after transcatheter aortic valve replacement. <i>Catheter Cardiovasc Interv</i>. 2019 Aug 16. doi: 10.1002/ccd.28444. [Epub ahead of print] PubMed PMID: 31419009.</p> <p>Elbadawi A, Elgendy IY, Mahmoud AH, Ogunbayo GO, Saad M, Megaly M, Alotaki E, Mentias A, Barakat AF, London B. Outcomes of Surgical Ablation in Patients with Atrial Fibrillation Undergoing Cardiac Surgeries. <i>Ann Thorac Surg</i>. 2018 Nov 24. pii: S0003-4975(18)31693-X. doi: 10.1016/j.athoracsur.2018.10.040. [Epub ahead of print] PubMed PMID: 30481521.</p> <p>Elbadawi A, Elgendy IY, Mahmoud K, Barakat AF, Mentias A, Mohamed AH, Ogunbayo GO, Megaly M, Saad M, Omer MA, Paniagua D, Abbott JD, Jneid H. Temporal Trends and Outcomes of Mechanical Complications in Patients With Acute Myocardial Infarction. <i>JACC Cardiovasc Interv</i>. 2019 Sep 23;12(18):1825-1836.</p> <p>Elbadawi A, Omer MA, Elgendy IY, Abuzaid A, Mohamed AH, Rai D, Saad M, Mentias A, Rezaq A, Kamal D, Khalife W, London B, Morsy M. Losartan for Preventing Aortic Root Dilatation in Patients with Marfan Syndrome: A Meta-Analysis of Randomized Trials. <i>Cardiol Ther</i>. 2019 Oct 13. doi: 10.1007/s40119-019-00149-3. [Epub ahead of print] PubMed PMID: 31606871.</p>

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Elgendy IY, Mahmoud AN, Elbadwai A, Elgendy AY, **Omer MA, Megaly M**, Mojadidi MK, Jneid H. In-hospital outcomes of transcatheter versus surgical aortic valve replacement for nonagenarians. *Catheter Cardiovasc Interv*. 2018 Dec 19. doi: 10.1002/ccd.28050. [Epub ahead of print] PubMed PMID: 30569661.

Hall AB, Brilakis ES. Hybrid 2.0: Subintimal plaque modification for facilitation of future success in chronic total occlusion percutaneous coronary intervention. *Catheter Cardiovasc Interv*. 2019 Feb 1;93(2):199-201. doi: 10.1002/ccd.28088. PubMed PMID: 30719852.

Hall AB, Brilakis ES. Saphenous vein graft failure: seeing the bigger picture. *J Thorac Dis*. 2019 May;11(Suppl 9):S1441-S1444. doi: 10.21037/jtd.2019.03.09. PubMed PMID: 31245156; PubMed Central PMCID: PMC6560559.

Hall AB, Brilakis ES. Treating saphenous vein graft lesions: Drug-eluting stents are not the answer! *Catheter Cardiovasc Interv*. 2019 Feb 15;93(3):E193-E194. doi: 10.1002/ccd.28011. PubMed PMID: 30770658.

Hall AB, Tummala PE, Burke MN, Brilakis ES. A case-based illustration of the use of microcatheter pressure transduction for confirmation of distal wire position in complex percutaneous coronary intervention. *Cardiovasc Revasc Med*. 2019 Aug 23. pii: S1553-8389(19)30486-5. doi: 10.1016/j.carrev.2019.08.013. [Epub ahead of print] PubMed PMID: 31495748.

Hall AB, Xenogiannis I, Burke MN, Brilakis ES. A case-based illustration of a dual-operator, dual microcatheter technique for side branch wiring. *Cardiovasc Revasc Med*. 2019 Aug 23. pii: S1553-8389(19)30485-3. doi: 10.1016/j.carrev.2019.08.012. [Epub ahead of print] PubMed PMID: 31494064.

Hauser RG, Sengupta J, Schloss EJ, Stanberry LI, **Wananu MK**, Abdelhadi R. Internal insulation breaches in an implantable cardioverter-defibrillator lead with redundant conductors. *Heart Rhythm*. 2019 Feb 14. pii: S1547-5271(19)30141-9. doi: 10.1016/j.hrthm.2019.02.019. [Epub ahead of print] PubMed PMID: 30772531

Ibrahim A, Khalil C, **Megaly M**, Tawadros M, Mosleh W, Corbelli J. Mesalamine-induced Myocarditis in a Young Athlete: Can He Run Again? *Cureus*. 2019 Jan 29;11(1):e3978. doi: 10.7759/cureus.3978. PubMed PMID: 30967978; PubMed Central PMCID: PMC6440563.

Khalil C, **Megaly M**, Ekladios C, Ibrahim A, Mosleh W, Tawadros M, Yatsynovich Y, Ramanan T, Youssef M, Hanna N, Khalil M, Al-Azizi KM, Shamoun F, Page B, Corbelli J. Evaluation of YouTube as a reliable source for patient education on aortic valve stenosis. *Cardiovasc Diagn Ther*. 2019 Aug;9(4):371-378.

Lahti SJ, **Feldman DI**, Dardari Z, Mirbolouk M, Orimoloye OA, Osei AD, Graham G, Rumberger J, Shaw L, Budoff MJ, Rozanski A, Miedema MD, Al-Mallah MH, Berman D, Nasir K, Blaha MJ. The association between left main coronary artery

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

calcium and cardiovascular-specific and total mortality: The Coronary Artery Calcium Consortium. *Atherosclerosis*. 2019 Mar 24. pii: S0021-9150(19)30151-0. doi: 10.1016/j.atherosclerosis.2019.03.015. [Epub ahead of print] PubMed PMID: 30954247.

Megaly M, Ali A, Abraham B, Khalil C, Zordok M, Shaker M, Tawadros M, Hennawy BS, Elbadawi A, **Omer M**, Saad M. Outcomes with drug-coated balloons in percutaneous coronary intervention in diabetic patients. *Cardiovasc Revasc Med*. 2019 Mar 13. pii: S1553-8389(19)30163-0. doi: 10.1016/j.carrev.2019.03.001. [Epub ahead of print] PubMed PMID: 30956042.

Megaly M, Garcia S, Anzia LE, Morley P, Garberich R, Gornick CC, Lesser J, Sorajja P, Gössl M, Sengupta J. Detection of Atrial Fibrillation and Atrial Flutter by Pacemaker Device Interrogation After Transcatheter Aortic Valve Replacement (TAVR): Implications for Management. *J Invasive Cardiol*. 2019 Jul;31(7):E177-E183. PubMed PMID: 31257211.

Megaly M, Gössl M, Sorajja P, Anzia LE, Henstrom J, Morley P, Garberich R, Bradley SM, Tang CY, Abdelhadi RH, Pederson W, Poulouse A, Gornick CC, Lesser J, Garcia S, Sengupta J. Outcomes after pacemaker implantation in patients with new-onset left bundle-branch block after transcatheter aortic valve replacement. *Am Heart J*. 2019 Dec;218:128-132. doi: 10.1016/j.ahj.2019.07.006. PubMed PMID: 31806088.

Megaly M, Karatasakis A, Abraham B, **Jensen J**, Saad M, **Omer M**, Elbadawi A, Sandoval Y, Shishehbor MH, Banerjee S, Alaswad K, Rinfret S, Burke MN, Brilakis ES. Radial Versus Femoral Access in Chronic Total Occlusion Percutaneous Coronary Intervention. *Circ Cardiovasc Interv*. 2019 Jun;12(6):e007778. doi:10.1161/CIRCINTERVENTIONS.118.007778. Epub 2019 Jun 14. PubMed PMID: 31195826

Skeik N, Hyde JR, Olson SL, **Thaler CM**, Abuatiyeh W, Ahmed AK, Lyon DR, Witt DR, Garberich R, Sullivan T. Non atherosclerotic Abdominal Vasculopathies. *AnnVasc Surg*. 2019 Jun 11. pii: S0890-5096(19)30382-6. doi:10.1016/j.avsg.2019.04.004. [Epub ahead of print] PubMed PMID: 31200053.

Tajti P, Xenogiannis I, **Hall A**, Burke MN, Chavez I, Garcia S, Gössl M, Mooney M, Poulouse A, Sorajja P, Wang Y, Vemmou E, Nikolakopoulos I, Morley P, Rangan BV, Ungi I, Brilakis ES. Use of the DyeVert System in Chronic Total Occlusion Percutaneous Coronary Intervention. *J Invasive Cardiol*. 2019 Sep;31(9):253-259.

Omer M, Xenogiannis I, Brilakis ES. Why every interventionalist should know when and how to deploy coils. *Int J Cardiol*. 2019 Oct 12. pii: S0167-5273(19)33855-0. doi: 10.1016/j.ijcard.2019.10.019. [Epub ahead of print] PubMed PMID: 31630818.

Urbach J, Hou CR, Lesser JR, Stanberry LI, Garberich RF, Caye D, Sorajja P, Gössl M. Computed Tomographic Angiography-Derived Risk Factors for Vascular

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Complications in Percutaneous Transfemoral Transcatheter Aortic Valve Implantation. *Am J Cardiol.* 2019 Jul 1;124(1):98-104. doi: 10.1016/j.amjcard.2019.03.043. Epub 2019 Apr 10. PubMed PMID: 31029410.

Vemmou E, Nikolakopoulos I, Xenogiannis I, **Megaly M, Hall A**, Wang Y, Chavez I, Garcia S, Burke MN, Brilakis ES. Recent advances in microcatheter technology for the treatment of chronic total occlusions. *Expert Rev Med Devices.* 2019 Apr;16(4):267-273. doi: 10.1080/17434440.2019.1602039. PubMed PMID: 30929525.

Vemmou E, Nikolakopoulos I, Xenogiannis I, Tajti P, **Hall A**, Brilakis ES. The Gordian Knot-If You Can Not Solve It, Cut It: Treating Guidewire Bending While Obtaining Arterial Access. *JACC Cardiovasc Interv.* 2019 Apr 5. pii: S1936-8798(19)30265-1. doi: 10.1016/j.jcin.2018.12.040. [Epub ahead of print] PubMed PMID: 30981571.

Xenogiannis I, Chavez I, **Hall AB**, Brilakis ES. Interventricular Septum and Free Wall Rupture in a Patient With Non-ST-Segment Elevation Myocardial Infarction: a Lethal Combination. *Hellenic J Cardiol.* 2019 May 30. pii: S1109-9666(19)30171-X. doi: 10.1016/j.hjc.2019.05.002. [Epub ahead of print] PubMed PMID: 31153998.

Xenogiannis I, Choi JW, Alaswad K, Khatri JJ, Doing AH, Dattilo P, Jaffer FA, Uretsky B, Krestyaninov O, Khelimskii D, Patel M, Mahmud E, Potluri S, Koutouzis M, Tsiafoutis I, Jaber W, Samady H, Jefferson BK, Patel T, **Megaly MS, Hall AB**, Vemmou E, Nikolakopoulos I, Rangan BV, Abdullah S, Garcia S, Banerjee S, Burke MN, Brilakis ES. Outcomes of subintimal plaque modification in chronic total occlusion percutaneous coronary intervention. *Catheter Cardiovasc Interv.* 2019 Dec 4. doi: 10.1002/ccd.28614. [Epub ahead of print] PubMed PMID: 31797507.

Xenogiannis I, Karpaliotis D, Alaswad K, Basir MB, Yeh RW, Tamez H, Patel M, Mahmud E, Choi JW, Burke MN, Doing AH, Dattilo P, Khatri JJ, Sheikh AM, Malik BA, Greene ME, Abi Rafeh N, Maalouf A, Abou Jaoudeh F, Moses JW, Lembo NJ, Parikh M, Kirtane AJ, Ali ZA, Gkargkoulas F, Russo J, Hakemi E, Tajti P, **Hall AB**, Vemmou E, Nikolakopoulos I, Rangan BV, Abdullah S, Banerjee S, Brilakis ES. Left Main Chronic Total Occlusion Percutaneous Coronary Intervention: A Case Series. *J Invasive Cardiol.* 2019 Jul;31(7):E220-E225. PubMed PMID: 31257217.

Xenogiannis I, Karpaliotis D, Alaswad K, Jaffer FA, Yeh RW, Patel M, Mahmud E, Choi JW, Burke MN, Doing AH, Dattilo P, Toma C, Uretsky B, Krestyaninov O, Khelimskii D, Holper E, Potluri S, Wyman RM, Kandzari DE, Garcia S, Koutouzis M, Tsiafoutis I, Khatri JJ, Jaber W, Samady H, Jefferson BK, Patel T, Moses JW, Lembo NJ, Parikh M, Kirtane AJ, Ali ZA, Gkargkoulas F, Tajti P, **Hall AB**, Rangan BV, Abdullah S, Banerjee S, Brilakis ES. Impact of concomitant treatment of non-chronic total occlusion lesions at the time of chronic total occlusion intervention. *Int J Cardiol.* 2019 Jul 3. pii: S0167-5273(18)37361-3. doi: 10.1016/j.ijcard.2019.06.077. [Epub ahead of print] PubMed PMID: 31301862.

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Xenogiannis I, Lin D, Lesser JR, **Hall AB**, Cavalcante JL, Brilakis ES, Gössl M. Finding the Culprit: Combining Cardiac Magnetic Resonance Imaging With Optical Coherence Tomography. *JACC Cardiovasc Interv.* 2019 Sep 20. pii: S1936-8798(19)31614-0.

Xenogiannis I, Nikolakopoulos I, Vemmou E, **Hall A**, Burke MN, Brilakis ES. Acute marginal branch loss in a patient with biventricular dysfunction. *Coron Artery Dis.* 2019 Jun 14. doi: 10.1097/MCA.0000000000000770. [Epub ahead of print] PubMed PMID: 31206404.

Xenogiannis I, Nikolakopoulos I, Vemmou E, **Megaly M, Omer M**, Poulou A, Brilakis ES. Spontaneous coronary artery dissection: Primum non nocere. *Hellenic J Cardiol.* 2019 Nov 15. pii: S1109-9666(19)30283-0. doi: 10.1016/j.hjc.2019.10.008. [Epub ahead of print] PubMed PMID: 31740357.

Xenogiannis I, Tajti P, **Hall AB**, Alaswad K, Rinfret S, Nicholson W, Karmpalotis D, Mashayekhi K, Furkalo S, Cavalcante JL, Burke MN, Brilakis ES. Update on Cardiac Catheterization in Patients With Prior Coronary Artery Bypass Graft Surgery. *JACC Cardiovasc Interv.* 2019 Sep 9;12(17):1635-1649. doi: 10.1016/j.jcin.2019.04.051. Epub 2019 Aug 14. Review. PubMed PMID: 31422085.

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

2018 Abstracts	<p>Lobo A, Sandoval Y, Burke MN, Chavez I, Goessl M, Henry T, Lips D, Bradley S, Mooney M, Poulouse A, Sorajja P, Traverse J, Wang Y, Brilakis E. Sleep Deprivation in Cardiology: A Multidisciplinary Survey. 2018 ACC Scientific Sessions, Orlando, FL. Session 1109: Professional Balance in Cardiology Training and Beyond. Presentation #1109-211.</p> <p>Shaukat A, Sandoval Y, Stanberry L, Garberich R, McMeans A, Burke MN, Chavez I, Gössl M, Henry T, Lips D, Mooney M, Poulouse A, Sorajja P, Traverse J, Wang Y, Bradley S, Brilakis E. Incidence, predictors, characteristics, management and outcomes of coronary perforations. Session 1157: Interventional Complications: Assessing Risk. 2018 ACC Scientific Sessions, Orlando, FL. Presentation #1157-304.</p> <p>Ahmed A, Garberich R, Aguirre F, Chambers J, Sandoval Y, Hibbs J, Henry T. Clinical characteristics and outcomes of left main ST-elevation myocardial infarction. 2018 ACC Scientific Sessions, Orlando, FL. Session 1203: Left Main, Multivessel, Bifurcation Lesions: Strategies to Manage High-Risk Patients. Presentation #1203-310.</p> <p>Thaler C, Lin D, Eckman P, Huynh N, Sandoval Y, Harris KM. Severely elevated troponin in a patient with arrhythmogenic right ventricular cardiomyopathy without evidence of arrhythmia or myocarditis. 2018 ACC Scientific Sessions, Orlando, FL. Session 1282: FIT Clinical Decision Making: Arrhythmia and Electrophysiology. Presentation #1282-169.</p> <p>Iverson A, Stanberry L, Garberich R, Antos A, Sandoval Y, Tajti P, Burke MN, Chavez I, Gössl M, Henry T, Lips D, Mooney M, Poulouse A, Sorajja P, Traverse J, Wang Y, Bradley S, Brilakis E. Impact of sleep deprivation on percutaneous coronary intervention. 2018 ACC Scientific Sessions, Orlando, FL. Session 1289: Emerging Ideas in Vascular Access and Complications. Presentation #1289-298.</p> <p>Miranda DF, Mudy K, Mackey-Bojack SM, Sanderson SO, Zimbwa P. Cardiac cells with hoarding behavior: an interesting case of heart failure. Presented at ISHLT Conference, Nice, France, April 11, 2018. Presentation #1298</p> <p>Megaly M, Anzia L, Melby D, Gornick CC, Zakaib JS, Garberich R, Rush P, Sorajja P, Lesser J, Gössl M, Sengupta J. High incidence of new-onset atrial fibrillation or atrial flutter in patients who require pacemaker placement after TAVR. Presented May 10, 2018 at Heart Rhythm Society Scientific Sessions, Boston, MA. Presentation #B-PO02-078</p>
-----------------------	---

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

2018 Publications	<p>Sandoval Y, Brilakis ES. Preventing and treating coronary perforations: Lessons from disaster management. <i>Catheter Cardiovasc Interv</i>. 2017 May;89(6):973-975. doi: 10.1002/ccd.27089. PubMed PMID: 28488413</p> <p>Gunsolus I, Sandoval Y, Smith SW, Sexter A, Schulz K, Herzog CA, Apple FS. Renal Dysfunction Influences the Diagnostic and Prognostic Performance of High-Sensitivity Cardiac Troponin I. <i>J Am Soc Nephrol</i>. 2018 Feb;29(2):636-643. doi: 10.1681/ASN.2017030341. Epub 2017 Oct 27. PubMed PMID: 29079658; PubMed Central PMCID: PMC5791068.</p> <p>Megaly M, Sandoval Y, Lillyblad MP, Brilakis ES. Aminophylline for Preventing Bradyarrhythmias During Orbital or Rotational Atherectomy of the Right Coronary Artery. <i>J Invasive Cardiol</i>. 2018 Feb 15. pii: JIC2018215-2. [Epub ahead of print] PubMed PMID: 29440624.</p> <p>Miranda DF, Lobo AS, Walsh B, Sandoval Y, Smith SW. New Insights Into the Use of the 12-Lead Electrocardiogram for Diagnosing Acute Myocardial Infarction in the Emergency Department. <i>Can J Cardiol</i>. 2018 Feb;34(2):132-145. doi:10.1016/j.cjca.2017.11.011. Epub 2017 Nov 29. Review. PubMed PMID: 29407007</p> <p>Sandoval Y, Apple FS, Smith SW. High-sensitivity cardiac troponin assays and unstable angina. <i>Eur Heart J Acute Cardiovasc Care</i>. 2018 Mar;7(2):120-128. doi: 10.1177/2048872616658591. Epub 2016 Jul 7. PubMed PMID: 27388716</p> <p>Iverson A, Stanberry L, Garberich R, Antos A, Sandoval Y, Burke MN, Chavez I, Gössl M, Henry TD, Lips D, Mooney M, Poulouse A, Sorajja P, Traverse J, Wang Y, Bradley S, Brilakis ES. Impact of sleep deprivation on the outcomes of percutaneous coronary intervention. <i>Catheter Cardiovasc Interv</i>. 2018 Jan 3. doi: 10.1002/ccd.27471. [Epub ahead of print] PubMed PMID: 29314592.</p> <p>Sandoval Y, Sorajja P, Harris KM. Contemporary Management of Ischemic Mitral Regurgitation: A Review. <i>Am J Med</i>. 2018 Feb 28. pii: S0002-9343(18)30128-1. doi: 10.1016/j.amjmed.2018.01.048. [Epub ahead of print] Review. PubMed PMID: 29501456</p> <p>Elbadawi A, Elgendy IY, Saad M, Megaly M, Mentias A, Abuzaid AS, Shahin HI, Goswamy V, Abowali H, London B. Meta-Analysis of Trials on Prophylactic Use of Levosimendan in Patients Undergoing Cardiac Surgery. <i>Ann Thorac Surg</i>. 2018 Mar 21. pii: S0003-4975(17)31529-1. doi: 10.1016/j.athoracsur.2017.11.027. [Epub ahead of print] PubMed PMID: 29573810.</p> <p>Kohl LP, Isselbacher EM, Majahalme N, Evangelista A, Russo MJ, Hutchison S, Bossone E, Suzuki T, Pyeritz RE, Gleason TG, Conklin LD, Montgomery DG, Nienaber CA, Eagle KA, Harris KM. Comparison of Outcomes in DeBakey Type AI Versus All Aortic Dissection. <i>Am J Cardiol</i>. 2018 Jun 30. pii: S0002-9149(18)31043-9. doi:</p>
--------------------------	---

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

2017 Abstracts	<p>Huynh N, Thordsen S, Thomas T, Nwaudu D, Garberich R, Harris K. Clinical and Pathologic Findings of Aortic Dissection at Autopsy: Review of 338 Cases over 6 Decades. Presented March 18, 2017 at ACC Conference, Washington, DC.</p> <p>Miranda D, Magod B, Wilson K, Garberich R, Williams D, Hryniewicz K. Outcomes of Extra Corporeal Membrane Oxygenation by Etiology: A Single Center Experience Presented at: ISHLT (International Society for Heart and Lung Transplantation) Conference in San Diego, April 5-8, 2017</p> <p>Miranda D, Magod B, Wilson K, Garberich R, Hryniewicz K. Venous-Arterial Extracorporeal Membrane Oxygenation as Bridge to LVAD is Associated with Good Long-term Outcomes and Quality of Life Presented at: ISHLT (International Society for Heart and Lung Transplantation) Conference in San Diego, April 5-8, 2017</p> <p>Danek BA, Tajti P, Karpaliotis D, Alaswad K, Jaffer F, Yeh R, Garcia S, Kandzari D, Lembo N, Patel M, Mahmud E, Choi J, Doing A, Lombardi W, Wyman RM, Toma C, Krestyaninov O, Moses J, Kirtane A, Hatem R, Parikh M, Karacsonyi J, Sandoval Y, Rangan B, Khalili H, Banerjee S, Brilakis E. The impact of complete versus incomplete revascularization on the outcomes of patients with single vessel and multivessel disease undergoing chronic total occlusion percutaneous coronary intervention. Presented at AHA Scientific Sessions, Anaheim CA, November 12, 2017.</p> <p>Sandoval Y, Christenson R, Wu A, Sexter A, Love S, Schulz K, Apple FS. High sensitivity cardiac troponin sex specific 99th percentiles derived from universal sample bank. Presented at AHA Scientific Sessions, Anaheim, CA. November 14, 2017.</p> <p>Donovan C, Johnson B, Garberich R, Hibbs J, Larson D, Henry T, Sharkey S. Influence of Cardiac Arrest and Cardiogenic Shock on Outcomes Among 4500 Consecutive ST Elevation Myocardial Infarction Patients. Presented March 18 at ACC Conference Washington DC</p> <p>Johnson B, Donovan C, Garberich R, Hibbs J, Larson D, Henry T, Sharkey S. Outcome and Characteristics of Shockable versus Non-shockable Cardiac Arrest in ST Elevation Myocardial Infarction at a Regional Transfer Center. Presented on March 18, 2017 at ACC Conference, Washington DC</p> <p>Sharma A, Nwaudu D, Pavlovec P, Strauss C, Garberich R, Sun B, Manunga J, Calcaterra D, Titus J, Harris K. Aortic dissection: long-term outcomes. Presented at AHA Scientific Sessions, Anaheim CA, November 11, 2017.</p>
-----------------------	--

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

2017 Publications	<p>Sandoval Y, Smith SW, Shah AS, Anand A, Chapman AR, Love SA, Schulz K, Cao J, Mills NL, Apple FS. Rapid Rule-Out of Acute Myocardial Injury Using a Single High-Sensitivity Cardiac Troponin I Measurement. <i>Clin Chem</i>. 2017 Jan;63(1):369-376. doi: 10.1373/clinchem.2016.264523</p> <p>Miranda DF, Bennett MK, Zimbwa P. Acute Fulminant Giant Cell Myocarditis Presenting with Syncopal Events Treated Successfully with Orthotopic Heart Transplant. <i>Journal of the Minneapolis Heart Institute Foundation</i>. 2017;1(1):72-75.</p> <p>Carlson MD. Reflections on Admissions for Heart-and Social System-Failure. <i>JAMA Cardiol</i>. 2017 Sep 1;2(9):948-949. doi: 10.1001/jamacardio.2017.1492. PubMed PMID: 28538951.</p> <p>Greenslade JH, Adikari T, Mueller C, Sandoval Y, Nestelberger T, Parsonage W, Hawkins T, Cullen L. Characteristics and occurrence of type 2 myocardial infarction in emergency department patients: a prospective study. <i>Emerg Med J</i>. 2017 Aug 7. pii: emermed-2017-206869. doi: 10.1136/emered-2017-206869. [Epub ahead of print] PubMed PMID: 28784608</p> <p>Díaz-Garzón J, Sandoval Y, Smith SW, Love S, Schulz K, Thordsen SE, Johnson BK, Driver B, Jacoby K, Carlson MD, Dodd KW, Moore J, Scott NL, Bruen CA, Hatch R, Apple FS. Discordance between ICD-Coded Myocardial Infarction and Diagnosis according to the Universal Definition of Myocardial Infarction. <i>Clin Chem</i>. 2017 Jan;63(1):415-419. doi: 10.1373/clinchem.2016.263764</p> <p>Sandoval Y, Thygesen K. Myocardial Infarction Type 2 and Myocardial Injury. <i>Clin Chem</i>. 2017 Jan;63(1):101-107. doi: 10.1373/clinchem.2016.255521. Review. PubMed PMID: 28062614</p> <p>Apple FS, Sandoval Y, Jaffe AS, Ordonez-Llanos J; IFCC Task Force on Clinical Applications of Cardiac Bio-Markers. Cardiac Troponin Assays: Guide to Understanding Analytical Characteristics and Their Impact on Clinical Care. <i>Clin Chem</i>. 2017 Jan;63(1):73-81. doi: 10.1373/clinchem.2016.255109. Review. PubMed PMID: 28062612</p> <p>Sandoval Y, Smith SW, Love SA, Sexter A, Schulz K, Apple FS. Single high-sensitivity cardiac troponin I to rule-out acute myocardial infarction. <i>Am J Med</i>. 2017 Mar 23. pii: S0002-9343(17)30257-7. doi: 0.1016/j.amjmed.2017.02.032. [Epub ahead of print] PubMed PMID: 28344141.</p> <p>Sandoval Y, Lobo AS, Brilakis ES. Covered stent implantation through a single 8-french guide catheter for the management of a distal coronary perforation. <i>Catheter Cardiovasc Interv</i>. 2017 Oct 1;90(4):584-588. doi: 10.1002/ccd.27020. [Epub 2017 Mar 17] PubMed PMID: 28303639.</p>
--------------------------	---

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

Apple FS, **Sandoval Y**, Jaffe AS. In Reply. Clin Chem. 2017 Jun;63(6):1167-1170. doi: 10.1373/clinchem.2017.273250. Epub 2017 Apr 20. PubMed PMID: 28428359.

Sandoval Y, Smith SW, Sexter A, **Thordsen SE**, Bruen CA, Carlson MD, Dodd KW, Driver BE, Hu Y, Jacoby K, **Johnson BK**, Love SA, Moore JC, Schulz K, Scott NL, Apple FS. Type 1 and 2 Myocardial Infarction and Myocardial Injury: Clinical Transition to High-Sensitivity Cardiac Troponin I. Am J Med. 2017 Jul 21. pii: S0002-9343(17)30716-7. doi: 10.1016/j.amjmed.2017.05.049. [Epub ahead of print] PubMed PMID: 28739197

Sandoval Y, Lobo AS, Somers VK, Rosenfield K, Bradley SM, Sorajja P, Tajti P, Brilakis ES. Sleep deprivation in interventional cardiology: Implications for patient care and physician-health. Catheter Cardiovasc Interv. 2017 Jul 14. doi: 10.1002/ccd.27185. [Epub ahead of print] PubMed PMID: 28707310

Sandoval Y, Smith SW, **Thordsen SE**, Bruen CA, **Carlson MD**, Dodd KW, Driver BE, Jacoby K, **Johnson BK**, Love SA, Moore JC, Sexter A, Schulz K, Scott NL, Nicholson J, Apple FS. Diagnostic Performance of High Sensitivity Compared with Contemporary Cardiac Troponin I for the Diagnosis of Acute Myocardial Infarction. Clin Chem. 2017 Oct;63(10):1594-1604. doi: 10.1373/clinchem.2017.272930. Epub 2017 Jul 12. PMID: 28701316

Sandoval Y. Editorial commentary: Improving our understanding of type 2 myocardial infarction and myocardial injury. Trends Cardiovasc Med. 2017 Aug;27(6):418-419. doi: 10.1016/j.tcm.2017.03.007. Epub 2017 Mar 28. PubMed PMID: 28457612

Danek BA, Karatasakis A, Tajti P, **Sandoval Y**, Karmpalotis D, Alaswad Jaffer F, Yeh RW, Kandzari DE, Lembo NJ, Patel MP, Mahmud E, Choi JW, Doing AH, Lombardi WL, Wyman RM, Toma C, Garcia S, Moses JW, Kirtane AJ, Hatem R, Ali ZA, Parikh M, Karacsonyi J, Rangan BV, Khalili H, Burke MN, Banerjee S, Brilakis ES. Incidence, Treatment, and Outcomes of Coronary Perforation During Chronic Total Occlusion Percutaneous Coronary Intervention. Am J Cardiol. 2017 Oct 15;120(8):1285-1292. doi: 10.1016/j.amjcard.2017.07.010. Epub 2017 Jul 24. PubMed PMID: 28826896

Sandoval Y, Burke MN, Lobo AS, Lips DL, Seto AH, Chavez I, Sorajja P, Abu-Fadel MS, Wang Y, Poulouse A, Gössl M, Mooney M, Traverse J, Tierney D, Brilakis ES. Contemporary Arterial Access in the Cardiac Catheterization Laboratory. JACC Cardiovasc Interv. 2017 Nov 27;10(22):2233-2241. doi: 10.1016/j.jcin.2017.08.058. Review. PubMed PMID: 29169493.

Chapman AR, Lee KK, McAllister DA, Cullen L, Greenslade JH, Parsonage W, Worster A, Kavsak PA, Blankenberg S, Neumann J, Sörensen NA, Westermann D, Buijs MM, Verdel GJE, Pickering JW, Than MP, Twerenbold R, Badertscher P, Sabti Z, Mueller C, Anand A, Adamson P, Strachan FE, Ferry A, Sandeman D, Gray A, Body R, Keevil B, Carlton E, Greaves K, Korley FK, Metkus TS, **Sandoval Y**, Apple FS, Newby DE, Shah ASV, Mills NL. Association of High-

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

	<p>Sensitivity Cardiac Troponin I Concentration With Cardiac Outcomes in Patients With Suspected Acute Coronary Syndrome. <i>JAMA</i>. 2017 Nov 21;318(19):1913-1924. doi: 10.1001/jama.2017.17488. PubMed PMID: 29127948.</p> <p>Shah ASV, Sandoval Y, Noaman A, Sexter A, Vaswani A, Smith SW, Gibbins M, Griffiths M, Chapman AR, Strachan FE, Anand A, Denvir MA, Adamson PD, D'Souza MS, Gray AJ, McAllister DA, Newby DE, Apple FS, Mills NL. Patient selection for high sensitivity cardiac troponin testing and diagnosis of myocardial infarction: prospective cohort study. <i>BMJ</i>. 2017 Nov 7;359:j4788. doi: 10.1136/bmj.j4788. PubMed PMID: 29114078; PubMed Central PMCID: PMC5683043.</p> <p>Chu MC, Dickey WP, Eales F, Johnson BK, Pagan-Carlo L, Skeik N. Idiopathic inflammatory ascending aortitis treated successfully with steroids. <i>J Minn Heart Inst</i>. 2017. 1(2);145-148.</p> <p>Elbadawi A, Elgendy IY, Megaly M, Ha LD, Mahmoud K, Alotaki E, Ogunbayo GO, Baig B, Abuzaid AS, Saad M, Depta JP. <i>Am J Cardiol</i>. 2017;120:1055-1061. PubMed PMID: 28826897.</p> <p>Megaly M, Saad M, Tajti P, Burke MN, Chavez I, Goessl M, Lips D, Mooney M, Poulouse A, Sorajja P, Traverse J, Wang Y, Kohl LP, Bradley SM, Brilakis ES. <i>J Interv Cardiol</i>. 2018 Jul 4. Doi:10.1111/joic.12538. [Epub ahead of print] PMID: 29974508.</p> <p>Elbadawi A, Elgendy IY, Saad M, Megaly M, Mentias A, Shahin HI, London B. Is there still room for the prophylactic use of levosimendan in cardiac surgery? (Reply). <i>Ann Thorac Surg</i>. 2018 [Epub ahead of print] PMID: 30028976</p>
<p>2016 Abstracts</p>	<p>Sorajja P, Nelson P, Bae R, Sandoval Y, Lesser J, Pedersen W, Tindell L, Harris K, Farivar RS. Adverse Impact of Aortic Regurgitation on the Long-Term Survival of Patients with Native Aortic Valve Stenosis. Presented at ACC 2016, Chicago IL.</p> <p>Johnson B, Garberich R, Johnson D, Larson D, Hildebrandt D, Henry T, Sharkey S. Ventricular Fibrillation Among Patients with ST-Elevation Myocardial Infarction in the PCI Era. Presented at ACC 2016.</p> <p>Garberich R, Sharkey S, Johnson D, Johnson B, Traverse J, Poulouse A, Lips D, Larson D, Henry T. Clinical Characteristics and Outcomes of Cardiac Arrest Patients in the Setting of ST-Elevation Myocardial Infarction. Presented at ACC 2016.</p> <p>Johnson B, Garberich R, Johnson D, Henry T, Sharkey S. Influence of Age and Gender on Outcomes in Patients with ST-Elevation Myocardial Infarction Complicated by Ventricular fibrillation or Tachycardia at a Regional PCI Center. Presented at ACC 2016.</p>

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

2016 Publications	<p>Johnson BK, Garberich RF, Henry TD, Katsiyiannis WT, Sengupta J, Kalra A, Hauser RG, Lardy ME, Newell MC. Eligibility and utilization of implantable cardioverter-defibrillators in a regional STEMI system. <i>Heart Rhythm</i>. 2016 Feb;13(2):538-46. doi: 10.1016/j.hrthm.2015.10.019. Epub 2015 Oct 13. PubMed PMID: 26576706.</p> <p>Kalra A, Harris KM, Maron BA, Maron MS, Garberich RF, Haas TS, Lesser JR, Maron BJ. Relation of Doppler Tissue Imaging Parameters With Heart Failure Progression in Hypertrophic Cardiomyopathy. <i>Am J Cardiol</i>. 2016 Jun 1;117(11):1808-14. doi: 10.1016/j.amjcard.2016.03.018. Epub 2016 Mar 19. PMID: 27089980</p> <p>Virani SS, Pokharel Y, Steinberg L, Chan W, Akeroyd JM, Gowani SA, Kalra A, Polsani V, Miedema MD, Jones PH, Nambi V, Petersen LA, Ballantyne CM. Provider understanding of the 2013 ACC/AHA cholesterol guideline. <i>J Clin Lipidol</i>. 2016 May-Jun;10(3):497-504.e4. doi: 10.1016/j.jacl.2015.11.002. Epub 2015 Nov 17. PMID: 27206936</p> <p>Kalra A, Pedersen WR, Mackey-Bojack SM, Duncanson ER, Harris KM. Patho-Histological Findings of Annular Rupture Related to Left Ventricular Outflow Tract (LVOT) Calcification Following Transcatheter Aortic Valve Replacement (TAVR). <i>J Heart Valve Dis</i>. 2016 May;25(3):296-300. PubMed PMID: 27989039</p> <p>Garcia S, Rector TS, Zakharova M, Herrmann RR, Adabag S, Bertog S, Sandoval Y, Santilli S, Brilakis ES, McFalls EO. Cardiac Remote Ischemic Preconditioning Prior to Elective Vascular Surgery (CRIPES): A Prospective, Randomized, Sham-Controlled Phase II Clinical Trial. <i>J Am Heart Assoc</i>. 2016 Sep 29;5(10). pii: e003916. PubMed PMID: 27688236.</p> <p>Sandoval Y. Passions and Realities of Training in Cardiology: Challenges for Fellows-in-Training. <i>J Am Coll Cardiol</i>. 2016 Jan 5;67(1):112-4; discussion 115. doi: 10.1016/j.jacc.2015.11.018. PubMed PMID: 26764073.</p> <p>Sandoval Y, Zakharova M, Rector TS, Brilakis ES, Drexel T, McFalls EO, Garcia S. Frequency of Increase in Cardiac Troponin Levels After Peripheral Arterial Operations (Carotid Endarterectomy, Abdominal Aorta Procedure, Distal Bypass) and Their Effect on Medical Management. <i>Am J Cardiol</i>. 2016 Dec 15;118(12):1929-1934. doi: 10.1016/j.amjcard.2016.08.087. PubMed PMID: 27726853.</p> <p>Hryniewicz K, Sandoval Y, Samara M, Bennett M, Cabuay B, Chavez IJ, Seatter S, Eckman P, Zimbwa P, Dunn A, Sun B. Percutaneous Venoarterial Extracorporeal Membrane Oxygenation for Refractory Cardiogenic Shock Is Associated with Improved Short- and Long-Term Survival. <i>ASAIO J</i>. 2016 Jul-Aug;62(4):397-402. doi: 10.1097/MAT.0000000000000378. PMID: 27045967</p> <p>Johnson BK, Tierney DM, Rosborough TK, Harris KM, Newell MC. Internal medicine point-of-care ultrasound assessment of left ventricular function</p>
------------------------------	--

Publications and Abstracts by MHI Cardiology Fellows 2012 – 2020

	<p>correlates with formal echocardiography. J Clin Ultrasound. 2016 Feb;44(2):92-9. doi: 10.1002/jcu.22272. Epub 2015 Jul 14. PubMed PMID: 26179460.</p>
2015 Abstracts	<p>Ankur Kalra, Pranay Rao, Amit Sharma, Ross Garberich, Deepa McGriff, Susan Casey, Raed Abdelhadi, JoEllyn Abraham, Jay Sengupta, Barry Maron. Silent Atrial Fibrillation Burden in Patients with Hypertrophic Cardiomyopathy. Poster presentation at the American College of Cardiology's 2015 Scientific Sessions held March 14-16 in San Diego, CA.</p> <p>Yader Sandoval, Kyle Anderson (2013-14 intern), Ivan Chavez, Ross Garberich, David Hildebrandt, Katarzyna Hryniewicz. Percutaneous Veno-Arterial Extracorporeal Membrane Oxygenation for Patients Presenting with Refractory Cardiogenic Shock Due to ST-Segment Elevation Myocardial Infarction. Poster presentation at the American College of Cardiology's 2015 Scientific Sessions held March 14-16 in San Diego, CA.</p>

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2015 Publications	<p>Kalra A, Maron MS, Rowin EJ, Colgan TK, Lesser JR, Maron BJ. Coronary embolization in hypertrophic cardiomyopathy with left ventricular apical aneurysm. <i>Am J Cardiol.</i> 2015 May 1;115(9):1318-9. doi: 10.1016/j.amjcard.2015.02.016. Epub 2015 Feb 12. PubMed PMID: 25759101.</p> <p>Maron BJ, Rowin EJ, Kalra A, Lesser JR, Maron MS. Reply: To PMID 25759101. <i>Am J Cardiol.</i> 2015 Aug 1;116(3):492-3. doi: 10.1016/j.amjcard.2015.05.001. Epub 2015 May 21. PubMed PMID: 26059868</p> <p>Kalra A, Pokharel Y, Hira RS, Risch S, Vicera V, Li Q, Kalra RN, Kerkar PG, Kumar G, Maddox TM, Oetgen WJ, Glusenka N, Turakhia MP, Virani SS. Cardiovascular Disease Performance Measures in the Outpatient Setting in India: Insights From the American College of Cardiology's PINNACLE India Quality Improvement Program (PIQIP). <i>J Am Heart Assoc.</i> 2015 May 20;4(5). pii: e001910. doi: 10.1161/JAHA.115.001910. PubMed PMID: 25994444; PubMed Central PMCID: PMC4599418.</p> <p>Lipman HI, Kalra A, Kirkpatrick JN. Foundations of medical decision-making for older adults with cardiovascular disease. <i>J Geriatr Cardiol.</i> 2015 Jul;12(4):335-9. doi: 10.11909/j.issn.1671-5411.2015.04.004. PubMed PMID: 26347213; PubMed Central PMCID: PMC4554783.</p> <p>Kalra A, Simegn MA, Bart BA. Inpatient Cardiology Consultation Service: Transitioning Fellows-in-Training to Independent Cardiovascular Consultants. <i>J Am Coll Cardiol.</i> 2015 Aug 18;66(7):867-70. doi: 10.1016/j.jacc.2015.06.1320. PubMed PMID: 26271071.</p> <p>Kalra A, Harris KM, Kische S, Alden P, Schumacher C, Nienaber CA. Endovascular Repair of Descending Thoracic Aorta in Loeys-Dietz II Syndrome. <i>Ann Vasc Surg.</i> 2015 Oct;29(7):1452.e17-21. doi: 10.1016/j.avsg.2015.04.071. Epub 2015 Jun 26. PubMed PMID: 26122412.</p> <p>Maron BJ, Rowin EJ, Kalra A, Lesser JR, Maron MS. Reply: To PMID 25759101. <i>Am J Cardiol.</i> 2015 Aug 1;116(3):492-3. doi: 10.1016/j.amjcard.2015.05.001. PubMed PMID: 26059868</p> <p>Johnson BK, Garberich RF, Henry TD, Katsiyannis WT, Sengupta J, Kalra A, Hauser RG, Lardy ME, Newell MC. Eligibility and utilization of implantable cardioverter-defibrillators in a regional STEMI system. <i>Heart Rhythm.</i> 2016 Feb;13(2):538-46. doi: 10.1016/j.hrthm.2015.10.019. Epub 2015 Oct 13. PubMed PMID: 26576706.</p>
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2014 Abstracts	<p>Ankur Kalra, Farnaaz Kia (2012 intern), Benjamin Johnson, Marc Newell, Ross Garberich, John Lesser, Raed Abdelhadi, Timothy Henry, Jay Sengupta. Post-Myocardial Infarction Risk Stratification of Patients at Risk for Sudden Cardiac Arrest by Contrast-Enhanced Magnetic Resonance Imaging Scar Quantification. Oral contribution presented at the American College of Cardiology's 2014 Scientific Session and Expo held March 29-31 in Washington, DC. Note: This study was selected as a finalist in the ACC's Young Investigator Award competition.</p>
2014 Publications	<p>Kohl LP, Garberich RF, Yang H, Sharkey SW, Burke MN, Lips DL, Hildebrandt DA, Larson DM, Henry TD. Outcomes of primary percutaneous coronary intervention in ST-segment elevation myocardial infarction patients with previous coronary bypass surgery. <i>JACC Cardiovasc Interv.</i> 2014 Sep;7(9):981-7. doi: 10.1016/j.jcin.2014.04.010. PubMed PMID: 25234670.</p> <p>Garg A, Brodie BR, Stuckey TD, Garberich RF, Tobbia P, Hansen C, Kissling G, Kadokia H, Lips D, Henry TD. New generation drug-eluting stents for ST-elevation myocardial infarction: a new paradigm for safety. <i>Catheter Cardiovasc Interv.</i> 2014 Nov 15;84(6):955-62. doi: 10.1002/ccd.25280. Epub 2014 Aug 11. PubMed PMID: 24174334.</p> <p>Brodie BR, Hansen C, Garberich RF, Browning JA, Tobbia P, Handran CB, Burke MN, Kadokia H, Stuckey TD, Henry TD. ST-segment elevation myocardial infarction resulting from stent thrombosis: an enlarging subgroup of high-risk patients. <i>J Am Coll Cardiol.</i> 2012 Nov 6;60(19):1989-91. doi: 10.1016/j.jacc.2012.07.043. Epub 2012 Oct 10. No abstract available. PMID: 23062533</p> <p>Tsigrelis C, Kalra A. Lung Abscess. First Consult, MD Consult Web Site. Available at: http://www.mdconsult.com/das/pdxmd/body/394417939-1131/0?type=med&eid=9-u1.0- 1 mt 5111610.</p> <p>Book Chapter: Kalra A, Aggarwal A, Kneeland R, Traverse JH. Percutaneous Coronary Intervention in Spontaneous Coronary Artery Dissection: Role of Intravascular Ultrasound. <i>Cardiol Ther.</i> 2014 Dec;3(1-2):61-6. doi: 10.1007/s40119-014-0029-4. Epub 2014 Aug 20. PubMed PMID: 25139465; PubMed Central PMCID: PMC4265227.</p> <p>Kalra A, Kneeland R, Samara MA, Cooper LT Jr. The Changing Role for Endomyocardial Biopsy in the Diagnosis of Giant-Cell Myocarditis. <i>Cardiol Ther.</i> 2014 Dec;3(1-2):53-9. doi: 10.1007/s40119-014-0028-5. Epub 2014 May 9. PubMed PMID: 25135591; PubMed Central PMCID: PMC4265228</p> <p>Kalra A, Maharaj V, Goldsmith SR. Vasopressin receptor antagonists: from pivotal trials to current practice. <i>Curr Heart Fail Rep.</i> 2014 Mar;11(1):10-8. doi: 10.1007/s11897-013-0175-3. Review. PubMed PMID: 24197791.</p> <p>Kalra A, Maharaj V, Johannsen RA, Hollenberg SM. Catheterization laboratory activation during mechanical cardiopulmonary resuscitation: when should we say</p>

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	<p>"No?". Catheter Cardiovasc Interv. 2014 Jan 1;83(1):58-64. doi: 10.1002/ccd.25167. Epub 2013 Sep 23. Review. PubMed PMID: 24038710.</p> <p>Kalra A, Shroff GR, Erlie D, Gilbertson DT, Herzog CA. Perflutren-based echocardiographic contrast in patients with right-to-left intracardiac shunts. JACC Cardiovasc Imaging. 2014 Feb;7(2):206-7. doi: 10.1016/j.jcmg.2013.11.003. PubMed PMID: 24524748.</p> <p>Maron BJ, Kalra A. Hypertrophic cardiomyopathy in the developing world: focus on India. Eur Heart J. 2014 Sep 21;35(36):2492-5. doi: 10.1093/eurheartj/ehu280. Epub 2014 Jul 19. PubMed PMID: 25038775.</p> <p>Daley B, Miranda D, Kalra A, Pease D. Profound thrombocytopenia caused by abciximab infusion following. Minn Med. 2014 Oct;97(10):48-9. PubMed PMID:25651641</p> <p>Kalra A. Organizing an International Elective: A Unique Opportunity for Cardiovascular Fellows. J Am Coll Cardiol. 2014;64(22):2429-2431. doi:10.1016/j.jacc.2014.10.014</p> <p>Kalra A, Shroff GR, Herzog CA. Safety of ultrasound contrast agents in patients with intracardiac shunts. J Am Soc Echocardiogr. 2014 Dec;27(12):1359. doi: 10.1016/j.echo.2014.08.021. Epub 2014 Oct 28. PubMed PMID: 25440508.</p> <p>Sandoval Y, Apple FS. The global need to define normality: the 99th percentile value of cardiac troponin. Clin Chem. 2014 Mar;60(3):455-62. doi: 10.1373/clinchem.2013.211706. Epub 2013 Oct 10. Review. PubMed PMID: 24115136.</p> <p>Sandoval Y, Smith SW, Thordsen SE, Apple FS. Supply/demand type 2 myocardial infarction: should we be paying more attention? J Am Coll Cardiol. 2014 May 27;63(20):2079-87. doi: 10.1016/j.jacc.2014.02.541. Epub 2014 Mar 13. PubMed PMID: 24632278.</p> <p>Stendahl JC, Hasan AS, Simegn MA. Massive interventricular septal aneurysm and stroke in a healthy young patient: guilt by association? J Stroke Cerebrovasc Dis. 2014 Mar;23(3):590-1. doi:10.1016/j.jstrokecerebrovasdis.2013.05.010. Epub 2013 Jun 6.</p> <p>Kalra A. Organizing an international elective: a unique opportunity for cardiovascular fellows. J Am Coll Cardiol. 2014 Dec 9;64(22):2429-31; discussion 2431. doi: 10.1016/j.jacc.2014.10.014. Epub 2014 Dec 1. PubMed PMID: 25465426.</p>
<p>2013 Publications</p>	<p>Palaniswamy C, Mishkin A, Aronow WS, Kalra A, Frishman WH. Remote patient monitoring in chronic heart failure. Cardiol Rev. 2013 May-Jun;21(3):141-50. doi: 10.1097/CRD.0b013e318276198b. Review. PubMed PMID: 23018667.</p>

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2012 Abstracts	<p>Louis Kohl, Ross Garberich, Hannah Yang, David Hildebrandt, Timothy Henry. Contemporary Outcomes of ST-elevation Myocardial in Patients with Prior Bypass Graft. Abstract presented at Transcatheter Cardiovascular Therapeutics conference held October 22-26, 2012, in Miami, FL.</p> <p>Michael Tradewell, Louis Kohl, Ross F Garberich, Anil K Poulouse, Randall K Johnson, Jay H Traverse, M Nicholas Burke, Theresa L Arndt, Timothy D Henry. Subsequent Revascularization in "No Option" Patients with Refractory Angina: Etiology and Outcome. Abstract presented at the American Heart Association Scientific Sessions 2012 held November 3-7 in Los Angeles, CA.</p>
2012 Publications	<p>Desai N, Kalra A. Short fourth and fifth metacarpals. JAMA. 2012 Sep 12;308(10):1034-5. doi: 10.1001/2012.jama.11065. No abstract available. PMID: 22968892.</p>