

caine-induced cardiac arrest linked to recent simulation training. *Anesth Analg* 2008; 106:1581-4

10. Rosenblatt MA, Abel M, Fischer GW, Itzkovich CJ, Eisenkraft JB: Successful use of a 20% lipid emulsion to resuscitate a patient after a presumed bupivacaine-related cardiac arrest. *ANESTHESIOLOGY* 2006; 105:217-8

11. Litz RJ, Popp M, Stehr SN, Koch T: Successful resuscitation of a patient with ropivacaine-induced asystole after axillary plexus block using lipid infusion. *Anaesthesia* 2006; 61:800-1

12. Warren JA, Thoma RB, Georgescu A, Shah SJ: Intravenous lipid infusion in the successful resuscitation of local anesthetic-induced cardiovascular collapse after supraclavicular brachial plexus block. *Anesth Analg* 2008; 106:1578-80

13. Callaham M, Madsen CD, Barton CW, Saunders CE, Pointer J: A randomized clinical trial of high-dose epinephrine and norepinephrine *versus* standard-dose epinephrine in prehospital cardiac arrest. *JAMA* 1992; 268: 2667-72

14. Tang W, Weil MH, Sun S, Noc M, Yang L, Gazmuri RJ: Epinephrine increases the severity of postresuscitation myocardial dysfunction. *Circulation* 1995; 92:3089-93

15. Weinberg GL, Di Gregorio G, Ripper R, Kelly K, Massad M, Edelman L, Schwartz D, Shah N, Zheng S, Feinstein DL: Resuscitation with lipid *versus* epinephrine in a rat model of bupivacaine overdose. *ANESTHESIOLOGY* 2008; 108:907-13

16. Di Gregorio G, Schwartz D, Ripper R, Kelly K, Feinstein DL, Minshall RD, Massad M, Ori C, Weinberg GL: Lipid emulsion is superior to vasopressin in a rodent model of resuscitation from toxin-induced cardiac arrest. *Crit Care Med* 2009; 37:993-9

17. Mayr VD, Mitterschiffthaler L, Neurauder A, Gritsch C, Wenzel V, Müller T, Luckner G, Lindner KH, Strohmenger HU: A comparison of the combination of epinephrine and vasopressin with lipid emulsion in a porcine model of asphyxial cardiac arrest after intravenous injection of bupivacaine. *Anesth Analg* 2008; 106:1566-71

18. Harvey M, Cave G, Kazemi A: Intralipid infusion diminishes return of spontaneous circulation after hypoxic cardiac arrest in rabbits. *Anesth Analg* 2009; 108:1163-8

19. Cave G, Harvey MG, Winterbottom T: Evaluation of the Association of Anaesthetists of Great Britain and Ireland lipid infusion protocol in bupivacaine induced cardiac arrest in rabbits. *Anaesthesia* 2009; 64:732-7

20. Hicks SD, Salcido DD, Logue ES, Suffoletto BP, Empey PE, Poloyac SM, Miller DR, Callaway CW, Menegazzi JJ: Lipid emulsion combined with epinephrine and vasopressin does not improve survival in a swine model of bupivacaine-induced cardiac arrest. *ANESTHESIOLOGY* 2009; 111:138-46

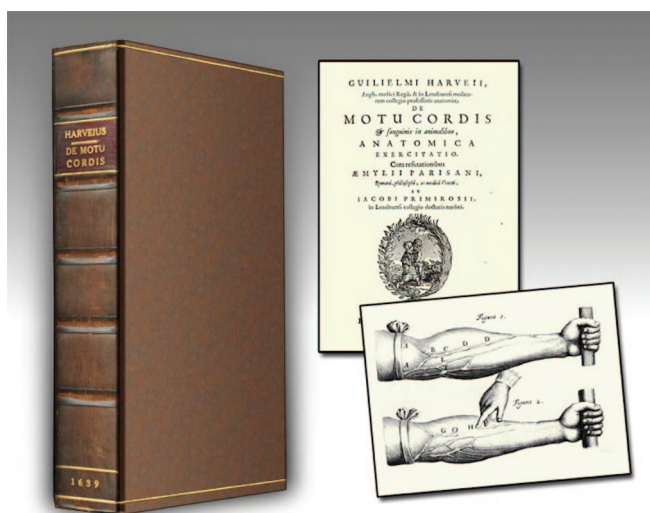
21. Porter JM, Markos F, Snow HM, Shorten GD: Effects of respiratory and metabolic pH changes and hypoxia on ropivacaine-induced cardiotoxicity in dogs. *Br J Anaesth* 2000; 84:92-4

22. Mazoit JX, Le Guen R, Beloeil H, Benhamou D: Binding of long-lasting local anesthetics to lipid emulsions. *ANESTHESIOLOGY* 2009; 110:380-6

23. Cross HR, Clarke K, Opie LH, Radda GK: Is lactate-induced myocardial ischaemic injury mediated by decreased pH or increased intracellular lactate? *J Mol Cell Cardiol* 1995; 27:1369-81

## ANESTHESIOLOGY REFLECTIONS

### Harvey's *De Motu Cordis*



Eleven years after releasing the first edition, English physician William Harvey (1578–1657) published this 1639 version, which, translated from Latin, he titled *Anatomical Exercises on the Motion of the Heart and Blood in Animals. With Refutations by Emilio Parisano and James Primrose*. Besides addressing the concerns of his critics Parisano and Primrose, Harvey hoped to reach an even broader range of academicians with his message that the “blood in the animal body is impelled in a circle, and is in a state of ceaseless motion. . . .” Courtesy of the Wood Library-Museum, the 1639 edition above depicts how valves permit venous return of blood solely toward the heart. From cardiovascular monitoring and physiology to vascular access and beyond, William Harvey’s impact on today’s clinical practice of medicine remains monumental. (Copyright © the American Society of Anesthesiologists, Inc. This image appears in color in the *Anesthesiology Reflections* online collection available at [www.anesthesiology.org](http://www.anesthesiology.org).)

George S. Bause, M.D., M.P.H., Honorary Curator, ASA’s Wood Library-Museum of Anesthesiology, Park Ridge, Illinois, and Clinical Associate Professor, Case Western Reserve University, Cleveland, Ohio. [UJYC@aol.com](mailto:UJYC@aol.com).