Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Coronavirus disease-2019 (COVID-19) can progress to acute respiratory distress syndrome (ARDS). Although there is a lack of specific therapies, the disease is known to involve alveolar infiltration by activated neutrophils. Metoprolol ameliorates exacerbated inflammation in other clinical settings by targeting neutrophils. The MADRID-COVID (Intravenous Metoprolol in Respiratory Distress Due to COVID-19) randomized clinical trial tested the potential benefits of metoprolol repurposing for ARDS in COVID-19 patients. Three days of intravenous metoprolol therapy (15 mg/day) significantly reduced lung neutrophil infiltration, significantly improved oxygenation, and showed a trend toward fewer days on invasive mechanical ventilation. Although further studies are needed, metoprolol is a safe and cheap intervention that may be beneficial in severe COVID-19.
Effect of Heart Rate on the Outcome of Renal Denervation in Patients With Uncontrolled Hypertension

Michael Böhm, Konstantinos Tsioufis, David E. Kandzari, Kazuomi Kario, Michael A. Weber, Roland E. Schmieder, Raymond R. Townsend, Saarraaken Kulenthiran, Christian Ukena, Stuart Pocock, Sebastian Ewen, Joachim Weil, Martin Fahy, Felix Mahfoud

The authors evaluated the association between baseline heart rate and blood pressure reduction following renal denervation in the absence of antihypertensive medications in the SPYRAL HTN-OFF MED Pivotal trial. Patients with office systolic blood pressure (SBP) 150-180 mm Hg were randomized 1:1 to renal denervation (RDN) or sham control and separated into groups with baseline heart rate <70 or ≥70 beats/min. Treatment differences at 3 months between RDN and sham control groups with baseline heart rate ≥70 beats/min for mean office, 24-hour, daytime, and nighttime SBP were greater compared with patients with baseline heart rate <70 beats/min.

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EDITORIAL COMMENT

Baseline Heart Rate Predicts the Blood Pressure Response to Renal Denervation in Untreated Hypertension

Brent M. Egan

Compression-Only Versus Rescue-Breathing Cardiopulmonary Resuscitation After Pediatric Out-of-Hospital Cardiac Arrest

Maryam Y. Naim, Heather M. Griffiths, Robert A. Berg, Richard N. Bradley, Rita V. Burke, David Markenson, Bryan F. McNally, Vinay M. Nadkarni, Lihai Song, Kimberly Vellano, Victoria Vetter, Joseph W. Rossano

In these analyses of pediatric out-of-hospital cardiac arrests (OHCA), compression only-cardiopulmonary resuscitation (CO-CPR) was the most common type of bystander CPR in the United States. Rescue breathing-CPR (RB-CPR) and CO-CPR were associated with better outcomes compared with no bystander-CPR (NO-CPR), RB-CPR had superior outcomes compared with CO-CPR. In age-stratified analyses, RB-CPR was associated with better outcomes compared with NO-CPR in all age groups. CO-CPR was associated with better outcomes compared with NO-CPR in children and adolescents, but not in infants. These results support current guidelines for RB-CPR for pediatric OHCA.

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EDITORIAL COMMENT

Chest Compression-Only Cardiopulmonary Resuscitation in Pediatric Out-of-Hospital Cardiac Arrest: (Don't) Take My Breath Away

Gene Yong-Kwang Ong
Chronic Fatigue Syndrome and Cardiovascular Disease: JACC State-of-the-Art Review
Benjamin H. Natelson, Danielle L. Brunjes, Donna Mancini

Myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) is an unexplained illness characterized by severe fatigue limiting normal daily activities for at least 6 months. Although rarely considered to have cardiac dysfunction, ME/CFS patients frequently have reduced stroke volume and a significant inverse relation between cardiac output and severity of postexertional malaise (PEM)—a prominent symptom of ME/CFS. Magnetic resonance imaging of ME/CFS patients compared with normal control subjects found significantly reduced stroke volume and cardiac mass. Autonomic dysfunction is frequently observed with postural orthostatic tachycardia and/or hypocapnia. Two cardiopulmonary stress tests done 24 hours apart may provide metabolic data substantiating PEM.

Myocardial Viability Assessment Before Surgical Revascularization in Ischemic Cardiomyopathy: JACC Review Topic of the Week
Julio A. Panza, Lukasz Chrzanoski, Robert O. Bonow

In ischemic cardiomyopathy, noncontractile myocardium may be viable and improve function with surgical revascularization. Although observational studies reported that only patients with substantial amounts of viability had better outcomes following revascularization, prospective trials have not confirmed such an interaction between myocardial viability and benefit from this procedure. In addition, recovery of left ventricular function is not the principal mechanism by which revascularization improves prognosis. A more contemporary application of viability testing therefore rests on the alternative concept that the main goal of surgical revascularization is to prevent further damage by protecting the residual viable myocardium from subsequent acute coronary events.