

From the Editor's Desk

Heart Disease Is Still a Primary Emphasis

Carl J. Lavie, MD

Medical Director, Cardiac Rehabilitation and Prevention, and Director, Exercise Laboratories, Ochsner Clinic Foundation,
New Orleans, LA

Guest Editor, *The Ochsner Journal*

Cardiovascular disease (CVD) remains the leading cause of morbidity and mortality in the United States (US) and all of Westernized civilization. Although welcome declines in CVD mortality have been occurring for several decades, recent statistics suggest that the epidemic of overweightness and obesity is placing a serious threat to the development of CVD, and if current trends continue, it has been predicted that we may soon notice a reversal in the decline in CVD morbidity and mortality.¹ Clearly, the prevention, assessment, and treatment of CVD remain serious concerns.

In recent years, great emphasis has been placed on the role of C-reactive protein (CRP) for predicting CVD risk and clinical prognosis. In fact, data from Ochsner Clinic have emphasized the importance of CRP in preventive cardiology.²⁻⁴ In this issue of the *Journal*, Drs. Milani and Lavie report original data from Ochsner's Cardiac Rehabilitation and Exercise Training Program in 635 consecutive patients, demonstrating the role of CRP in predicting blood pressure responsiveness to a standard lifestyle intervention program.

Several studies from Ochsner Cardiology have focused on the prognostic impact of left ventricular (LV) geometry on clinical prognosis,⁵⁻⁹ including studies in *The Ochsner Journal*.¹⁰ Dr. Edward Frohlich, perhaps the foremost authority in the world on LV geometry, particularly the importance of LV hypertrophy or LVH in hypertension, provides an excellent, state-of-the-art review of this topic. In addition to LV geometry, recent work has focused on the importance of the left atrium (LA) in CVD and prediction of prognosis. Dr. Dharm Patel has award-winning research from Ochsner Clinic resulting in more than 15 major oral and poster presentations on LV geometry and the LA at the national meetings of the American Heart Association and the American College of Cardiology, as well as other national and international meetings, during the past 2 years. He and his mentors

review the recent evidence exploring the clinical implications of LA enlargement.

It has been well known that salt consumption plays a role in the development of hypertension and worsening in volume overload in patients with heart failure (HF). However, sodium intake plays a role in CVD well beyond simply increasing arterial pressure, which is reviewed in detail by Drs. Susic, Frohlich, and colleagues. As mentioned previously, CRP has been a major topic during the past decade and has become even "hotter" with publication of the recent JUPITER trial.¹¹ The implications of the JUPITER trial, particularly regarding the routine assessment of CRP, are reviewed by Dr. Verma and his mentors.

For more than two decades, Ochsner Cardiology staff have been leaders in the area of percutaneous intervention, not just in the coronary circulation but also the peripheral circulation (cerebral vessels, renal vessels, and lower extremity and mesenteric circulation). In fact, Dr. Chris White, the head of the Department of Cardiovascular Diseases at Ochsner, has been editor of the *Catheterization and Cardiovascular Intervention* journal for many years; additionally, the head of the Ochsner Catheterization Laboratory, Dr. Steve Ramee, along with Drs. Tyrone Collins, Steve Jenkins, and colleagues, have been associate/section editors of this prestigious interventional journal. In this issue of the *Journal*, Drs. Jaffrey and Grant of the Ochsner Interventional team review data regarding multisystem percutaneous revascularization. Many patients, however, often with very severe diffuse vascular disease, remain resistant to standard medical therapies, as well as aggressive interventions, and Drs. Verma and Grise review treatment options for these patients.

During recent years, the diagnosis of HF has been increasing and has been the leading cause of hospitalizations and overall morbidity in the US. The Ochsner HF and Transplantation Division has been headed by Dr. Hector Ventura, who is world renowned

in the fields of hypertension, HF, and cardiac transplantation. In this issue, Drs. Gaddam, Ventura, and colleagues review strategies for patients with advanced HF. Along with HF, pulmonary hypertension (PH) is being emphasized by our advanced HF program, and Drs. Thompson, Hamang Patel, and colleagues review the importance of PH in modern practice.

Electrophysiologic techniques have been advancing at a rapid pace. A major issue in electrophysiology has been atrial fibrillation (AF), which along with obesity is increasing in epidemic proportions and may be lessened with omega-3 fatty acids.^{12,13} In this issue, Drs. Saad, Morin, and Khatib discuss current concepts in AF. Dr. Owen and mentors discuss the role of advanced pacing with cardiac resynchronization therapy, which has been demonstrated to improve quality of life, reduce hospitalizations, and probably increase survival in some patients with advanced HF.

Like electrophysiologic techniques, advanced cardiac imaging technologies have also been proliferating. Although the leading imaging modalities for patients with CVD have typically been echocardiography and nuclear imaging, cardiac CT scanning (reviewed by Drs. Dinshaw, Delaney, and Reilly) and magnetic resonance imaging (reviewed by Drs. Shah, Chrystos, and Parker) are aiding in the noninvasive evaluation of many patients with complex CVD.

Finally, sudden cardiac death (SCD) remains one of the leading causes of death, and this catastrophe may also be partly prevented with omega-3 fatty acids.¹²⁻¹⁴ Although many patients with SCD expire before reaching the hospital, the prognosis for patients with SCD who initially “survive” remains dismal. Drs. Alkadri and McMullan discuss a promising new modality of induced hypothermia as a neuroprotectant therapy to hopefully improve the meaningful survival in patients resuscitated from SCD.

The prevention, assessment, and treatment of patients with CVD remain one of the leading medical issues in the US. I greatly appreciate the efforts of my colleagues who have contributed these outstanding articles to this cardiovascular symposium.

REFERENCES

1. Lavie CJ, Milani RV, Ventura HO. Obesity and cardiovascular disease: risk factor, paradox, and impact of weight loss. *J Am Coll Cardiol*. 2009;53:1925–1932.
2. Milani RV, Lavie CJ, Mehra MR. Reduction in C-reactive protein through cardiac rehabilitation and exercise training. *J Am Coll Cardiol*. 2004;43:1056–1061.
3. Milani RV, Lavie CJ. Prevalence and profile of metabolic syndrome in patients following acute coronary events and effects of therapeutic lifestyle change with cardiac rehabilitation. *Am J Cardiol*. 2003;92:50–54.
4. Lavie CJ, Milani RV, Verma A, O’Keefe JH. C-reactive protein and cardiovascular disease: is it ready for primetime? *Am J Med Sci*. 2009;338:486–492.
5. Milani RV, Lavie CJ, Mehra MR, Ventura HO, Kurtz JD, Messerli FH. Left ventricular geometry and survival in patients with normal left ventricular ejection fraction. *Am J Cardiol*. 2006;97:959–963.
6. Lavie CJ, Milani RV, Ventura HO, Messerli FH. Left ventricular geometry and mortality in patients >70 years of age with normal ejection fraction. *Am J Cardiol*. 2006;98:1396–1399.
7. Lavie CJ, Milani RV, Ventura HO, Cardenas GA, Mehra MR, Messerli FH. Disparate effects of left ventricular geometry and obesity on mortality in patients with preserved left ventricular ejection fraction. *Am J Cardiol*. 2007;100:1460–1464.
8. Lavie CJ, Milani RV, Patel D, Artham SM, Ventura HO. Disparate effects of obesity and left ventricular geometry on mortality in 8088 elderly patients with preserved systolic function. *Postgrad Med*. 2009;121:119–125.
9. Artham SM, Lavie CJ, Milani RV, Patel DA, Verma A, Ventura HO. Clinical impact of left ventricular hypertrophy and implications for regression. *Prog Cardiovasc Dis*. 2009;52:153–167.
10. Lavie CJ, Milani RV, Shah SB, et al. Impact of left ventricular geometry on prognosis—a review of Ochsner studies. *Ochsner J*. 2008;8:11–17.
11. Ridker PM, Danielson F, Fonesca FA, et al; JUPITER Study Group. Rosuvastatin to prevent vascular events in men and women with elevated C-reactive protein. *N Engl J Med*. 2008;359:2195–2207.
12. Lavie CJ, Milani RV, Mehra MR, Ventura HO. Omega-3 polyunsaturated fatty acids and cardiovascular diseases. *J Am Coll Cardiol*. 2009;54:585–594.
13. Artham SM, Lavie CJ, Milani RV, Anand RG, O’Keefe JH, Ventura HO. Fish oil in primary and secondary cardiovascular prevention. *Ochsner J*. 2008;8:49–60.
14. Lavie CJ, Milani RV, O’Keefe JH. The Russert impact: a golden opportunity to promote primary coronary prevention. *Ochsner J*. 2008;8:108–113.