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Selection of the Best of 2016 in Clinical Cardiology: Continuum of Care; Relationship Between Cardiology and Primary Care

Selección de lo mejor del año 2016 en cardiología clínica: continuidad asistencial; relación entre cardiología y atención primaria

To the Editor,

Efforts to reduce cardiovascular morbidity and mortality and improve quality of life among chronic heart disease patients require appropriate coordination between cardiology and primary care services. For example, ensuring suitable continuity between these services has been shown to reduce hospitalization in chronic heart failure patients by allowing optimization of medical treatment and early identification of decompensations.[1]

Patients with ischemic heart disease are at high risk of new ischemic events. Cardiac rehabilitation units provide exemplary care to patients recovering from an acute event; however, the very nature of primary care make it the optimal setting for further improvement in long-term secondary prevention, through the promotion of life style changes and measures to ensure that patients adhere to treatment during follow-up.

A recent study conservatively estimated the global direct health-care cost of physical inactivity in 2013 at $54 billion, with $31 billion of this total paid by the public sector; moreover, evaluation of indirect costs indicated that deaths related to physical inactivity cost an estimated $14 billion in lost productivity, with physical inactivity causing 13 million disability-adjusted life-years.[2] Most costs were incurred in high-income countries (81% of health-care costs and 60% of indirect costs). Physical inactivity is thus linked not only to high cardiovascular morbidity and mortality, but also to a substantial economic burden.[2] It is therefore incumbent on cardiology and primary care services to coordinate efforts to encourage patients to adopt appropriate life style changes.

Poor treatment adherence is a major barrier to secondary prevention in ischemic heart disease patients. The many causes of treatment nonadherence include the chronic nature of the disease, the high frequency of asymptomatic or weakly symptomatic disease, medication copayments, and lack of awareness among physicians and patients; however, the most important cause is without doubt treatment complexity. Poor treatment adherence increases cardiovascular morbidity and mortality and health care costs. For some patients, the use of a polypill is a valid approach to tackling this problem. This approach can be advantageous for patients with a history or high risk of treatment nonadherence, those who are poorly controlled with equipotent doses and have adherence problems, those who are well controlled with the individual polypill components, and those with a high medication burden to treat comorbidities. In contrast, polypill medication is contraindicated in patients predicted not to achieve or at least come close to achieving the therapeutic goals recommended in clinical practice guidelines, as well as in those with intolerance or allergy to one of the polypill components. In Spain, a polypill is currently available composed of aspirin (100 mg), atorvastatin (20 mg), and ramipril (2.5-10 mg).[3]

Prevention of thromboembolic complications is essential in patients with atrial fibrillation. The risk is effectively reduced with vitamin K antagonists, and recent research shows that the risk of complications is low in patients with a well-controlled INR.[4] However, in Spain and other European countries, anticoagulation is inadequate in approximately 40% of nonvalvular atrial fibrillation patients managed with vitamin K antagonists through their primary care center.[5] In patients with nonvalvular atrial fibrillation, direct-acting oral anticoagulants are at least as effective as warfarin in preventing stroke and systemic embolism but have a better safety profile, especially regarding the risk of intracranial hemorrhage. These drugs, moreover, provide stable and predictable anticoagulation, rendering periodic anticoagulation tests unnecessary. Unfortunately, the use of these drugs in Spain is heavily restricted, both in primary care and in cardiology services; moreover, these restrictions differ between the various Spanish autonomous communities and impede appropriate access to these

anticoagulants. To improve access to these drugs, the Spanish Society of Cardiology and other scientific societies, including those related to primary care, recently proposed a series of amendments to the Health Ministry's policy in this area.[6]

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Selection of the Best of 2016 in Clinical Cardiology: Therapeutic Novelties

Selección de lo mejor del año 2016 en cardiología clínica. Novedades terapéuticas

To the Editor,

The results of important clinical trials were published in 2016 with far-reaching implications for clinical cardiology practice.

The PARADIGM-HF trial[1] compared the effects of valsartan/sacubitril (LCZ696) 200 mg twice daily vs enalapril 10 mg twice daily added to standard therapy in about 8500 patients with symptomatic heart failure (HF), New York Heart Association functional class II-IV, and ejection fraction $\leq$ 40%. The primary outcome was a composite of death from cardiovascular causes or HF hospitalization. The trial was stopped early after a median follow-up of 27 months due to the strength of the positive results achieved with valsartan/sacubitril. LCZ696 was associated with a 20% reduction in the risk of the primary outcome and a 16% reduction in death from any cause. In addition, LCZ696 reduced HF symptoms and improved functional class.[1] These results have led the new European guidelines[2] to recommend the use of valsartan/sacubitril instead of angiotensin-converting enzyme inhibitors to reduce the risk of HF hospitalization and death in ambulatory patients with HF and reduced ejection fraction who remain symptomatic despite optimal treatment (IB recommendation). It has also recently been shown that valsartan/sacubitril therapy can be cost-effective in this context.[3]

Diabetes mellitus is one of the major epidemics of the 21st century. As is well known, diabetes increases the risk of both microvascular and macrovascular complications. Glycemic control through antidiabetic therapy effectively reduces microvascular complications and even macrovascular complications in patients with less advanced disease. However, intensive lipid-lowering therapy can be harmful in patients with more advanced diabetes. Since 2008, due to doubts about the cardiovascular safety of some drugs, all antidiabetic drugs must demonstrate cardiovascular safety in specific clinical trials, in addition to reducing glycated hemoglobin levels, before they can be approved for use in clinical practice. In this context, the cardiovascular safety of dipeptidyl peptidase-4 inhibitors (saxagliptin, alogliptin, and sitagliptin) has been shown, although doubts have been raised about the risk of HF hospitalization with some of them.

The EMPA-REG OUTCOME trial was published in the past year. This study showed that empagliflozin, a sodium-glucose cotransporter 2 (SGLT2) inhibitor, reduces the risk of the primary composite outcome of death from cardiovascular causes, nonfatal myocardial infarction, or nonfatal stroke vs placebo in patients with type 2 diabetes and established cardiovascular disease.[4] The recent guidelines for HF specify that empagliflozin should be considered for patients with type 2 diabetes to prevent or delay the onset of HF and prolong life; this is the first time that an antidiabetic drug has received a recommendation of this type.[2] More recently, in the LEADER trial,[5] liraglutide, a glucagon-like peptide-1 (GLP-1) analog, reduced the risk of the same primary composite outcome vs placebo in patients with type 2 diabetes at high cardiovascular risk. The results of these studies are discussed in greater detail in another scientific letter on the same topic.

One of the other therapeutic innovations of this year concerns PCSK9 inhibitors. Generally, previous studies performed with these antibodies have achieved considerable reductions in low-density lipoprotein-cholesterol (LDL-C), both in monotherapy and in combination with other lipid-lowering agents, as well as a good safety profile, at least during 1-year follow-up. Although the results on morbidity and mortality from large clinical trials are required, the currently available data indicate that their use might also be associated with a significant reduction in cardiovascular events. Additionally, because these drugs are injected every 2 to 4 weeks, they might lead to better therapeutic adherence than