

Update: Innovation in Cardiology

Innovation in Cardiology: Introduction

Innovación en cardiología: introducción

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Given the importance of continuing medical education in our specialty, *Revista Española de Cardiología* presents a new Update section. In previous years, we have dealt with such interesting subjects as “Cardiovascular diseases in women” (2006),¹ “Noncoronary arterial disease” (2007),² “Cardiovascular prevention” (2008),³ “Cardiovascular translational medicine” (2009),⁴ “The right heart and pulmonary circulation” (2010),⁵ “Systemic diseases and the cardiovascular system” (2011),⁶ and “Arrhythmias” (2012).⁷

In this new volume of the Update section for 2013, we examine the subject of “Innovation in cardiology”. Cardiology is a specialty that has always been in the vanguard of technological innovation. Especially in recent years, the introduction of new technological tools has opened the door to a revolution in both diagnostic and therapeutic developments. Cardiac imaging techniques are evolving rapidly (3-dimensional echocardiography, computed tomography with measurement of coronary fractional flow reserve, etc.) and are a central pillar in the diagnosis of many cardiovascular diseases. The development of new materials—such as catheters, bioprostheses specifically designed for percutaneous implantation, and stents—has facilitated the application of effective therapeutic solutions with an excellent risk-benefit ratio. Moreover, as in the case of bioabsorbable stents, this development has served to boost the most advanced basic and clinical research.

As in previous volumes, throughout the various articles an attempt has been made to deal with the most contemporary topics, those that will continue to change cardiology. Consequently, in line with the journal's policy, we have solicited manuscripts from highly prestigious authors with extensive experience in the various topics addressed. The first article (by Dr. Ibáñez) analyzes the future of imaging techniques, with special attention paid to those that can be combined to allow the patient to undergo a single examination. Prof. Clemmensen will portray the present and future of telemedicine⁸ and the new electrocardiographic monitoring systems, applied to pacemakers, defibrillators, and patients with heart failure. Prof. Ackerman will apprise us on the state of personalized medicine⁹ and genetic diagnosis. Dr. Gálvez will analyze the present and future of cardiac tissue engineering and organogenesis.¹⁰ In the field of interventional cardiology, the next articles will deal with the present and future of distinct techniques

employed to treat various diseases: renal denervation in the case of hypertension¹¹ (Prof. Krum), the implantation of coronary stents in coronary artery disease¹² (Prof. Serruys), and percutaneous mitral repair in cases of mitral regurgitation¹³ (Prof. Rodés). Prof. Mayr presents a highly attractive and interesting subject, the biological approach to diagnostics involving metabolomics and proteomics.¹⁴

We hope that the contents of this series will be of interest and will appeal to readers of *Revista Española de Cardiología*. It is our wish that the series will, to put it quite appropriately, “update” the reader on these interesting but often unfamiliar topics, and that these articles will provide a practical view of how we will be putting these new tools to use in the near future and of how they will change our relationship with the patient and heart disease.

REFERENCES

- Alfonso F, Bermejo J, Segovia J. Enfermedades cardiovasculares en la mujer: ¿por qué ahora? *Rev Esp Cardiol*. 2006;59:259–63.
- Alfonso F, Segovia J, Heras M, Bermejo J. Patología arterial no coronaria: ¿de interés para el cardiólogo? *Rev Esp Cardiol*. 2007;60:179–83.
- Alfonso F, Segovia J, Heras M, Bermejo J. Prevención cardiovascular: ¿siempre demasiado tarde? *Rev Esp Cardiol*. 2008;61:291–8.
- Bermejo J, Heras M, Segovia J, Alfonso F. Medicina cardiovascular traslacional. Ahora o nunca. *Rev Esp Cardiol*. 2009;62:66–8.
- Segovia J, Bermejo J, Alfonso F, Heras M. Corazón derecho y circulación pulmonar: una circulación menor? *Rev Esp Cardiol*. 2010;63:77–80.
- Pérez de Isla L, Avanzas P, Bayes-Genis A, Sanchis J, Heras M. Enfermedades sistémicas y corazón: introducción. *Rev Esp Cardiol*. 2011;64:60–1.
- Bayes-Genis A, Avanzas P, Pérez de Isla L, Sanchis J, Heras M. Arritmias: introducción. *Rev Esp Cardiol*. 2012;65:91.
- Clemmensen P, Loumann-Nielsen S, Sejersten M. Telemedicine fighting acute coronary syndromes. *J Electrocardiol*. 2010;43:615–8.
- Ackerman MJ. Personalized medicine. *J Med Pract Manage*. 2009;25:194–5.
- Bayes-Genis A, Gálvez-Montón C, Prat-Vidal C, Soler-Botija C. Cardiac adipose tissue: A new frontier for cardiac regeneration? *Int J Cardiol*. 2012 Jun 16. <http://dx.doi.org/10.1016/j.ijcard.2012.05.082> [Epub ahead of print].
- Schlaich MP, Krum H, Sobotta PA, Esler MD. Renal denervation and hypertension. *Am J Hypertens*. 2011;24:635–42.
- Bourantas CV, Zhang Y, Farooq V, Garcia-Garcia HM, Onuma Y, Serruys PW. Bioresorbable scaffolds: current evidence and ongoing clinical trials. *Curr Cardiol Rep*. 2012;14:626–34.
- Bertrand OF, Philippon F, St Pierre A, Nguyen CM, Larose E, Bilodeau S, et al. Percutaneous mitral valve annuloplasty for functional mitral regurgitation: acute results of the first patient treated with the Viacor permanent device and future perspectives. *Cardiovasc Revasc Med*. 2010;11:e1.265–8.
- Thum T, Mayr M. Review focus on the role of microRNA in cardiovascular biology and disease. *Cardiovasc Res*. 2012;93:543–4.

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