Update: Innovation in Cardiology

Innovation en cardiología: introducción

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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 telemedicine 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 medicine and genetic diagnosis. Dr. Galvez will analyze the present and future of cardiac tissue engineering and organogenesis. 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 derenervation in the case of hypertension (Prof. Krum), the implantation of coronary stents in coronary artery disease (Prof. Serruys), and percutaneous mitral repair in cases of mitral regurgitation (Prof. Rodrés). Prof. Mayr presents a highly attractive and interesting subject, the biological approach to diagnostics involving metabolomics and proteomics.

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