

Imagine all the people sharing all the world...

At the end of the 20th century an editorial published in *The New England Journal of Medicine* summarizing the 11 most important medical achievements of the past 1,000 years included body imaging together with the discovery of antimicrobial agents, the development of anesthesia and the elucidation of inheritance and genetics (1).

There is no doubt that imaging techniques have revolutionized medicine, allowing for not only identification of diseases, but also providing a guidance for treatment.

From the discovery by Wilhelm Konrad Röntgen of X-ray (technology for which he received the first Nobel prize for physics in 1901), internal imaging of the human body has been possible only in the past century. In particular, cardiovascular imaging in the last 50 years has developed a number of modalities each of which in turn have provided a series of different and complex sub-modalities over time. As with echocardiography, evolution of technology and a certain degree of serendipity have allowed the evolution of multiple approaches, each one for a unique clinical setting (M-mode, 2D, 3D, transesophageal echo, contrast echo, intra-cardiac echo, epi-cardial echo, epi-aortic echo, and more).

New therapies are now available for old diseases as in the case of the trans-catheter interventions for aortic stenosis or functional mitral regurgitation. These therapies are made possible by new and highly sophisticated imaging techniques and require the cooperation of specialists of different medical backgrounds (cardiologists, cardiac surgeons, radiologists, anesthesiologists) in an integrated setting.

These different specialists closely collaborate and communicate using a common language and a common knowledge in that “Heart Team” environment that is universally advocated in guidelines. This requires a high level of comprehension of body imaging also for those professionals that are not traditionally trained specifically in those topics. Just think about cardiac surgeons performing minimally invasive robotic surgery: a thorough interpretation of preoperative CT scans, a careful understanding of intraoperative transesophageal echo, and a judicious analysis of postoperative results are crucial and require a strict interaction with a number of professionals, as well as significant interpretation skills.

This monographic issue of *Journal of Thoracic Disease* was conceived to facilitate this new collaboration. In the volume, experts in various imaging modalities (CT, echocardiography, MRI, nuclear medicine) as well as cardiologists, intensivists and cardiac surgeons provide the state of the art expertise of the distinctive imaging techniques used in the cardiovascular field with the aim of facilitating a universal language and the sharing of knowledge.

As in the famous John Lennon’s lyric, the future in the cardiovascular field is in the sharing of a common world by the individual professions.



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