EUROECHO 2010
Copenhagen, Denmark, 8–11 December 2010

The 14th Annual Meeting of the European Association of Echocardiography, which is held every year, was held in cooperation with the Working Group on Echocardiography of the Danish Society of Cardiology at the Bella Center in Copenhagen from 8–11 December 2010, and attracted thousands of delegates from many European and non-European countries. The meeting programme promised to be attractive for those physicians who are involved in echocardiography and noninvasive cardiovascular imaging. The scientific programme offered advanced teaching courses, an imaging campus, and also aimed to offer practical training and hands-on experience, in addition to the main sessions and symposia.

It is not possible to mention all the highlights of the meeting due to space restrictions, but here I will present my personal view on the meeting. The faculty worked hard to fulfil the expectations of attendees and many well-known experts were in attendance.

In order to offer practical training, besides theory sessions in the latest echo techniques and/or the new clinical applications of existing ones, the organizing committee of EUROECHO 2008 launched a new educational platform, termed the Imaging Campus. The Imaging Campus was designed to offer delegates a unique opportunity for practical training in noninvasive imaging. Each session, lasting approximately 90 min, ran four-times daily on the same topic. Concerning the oral sessions, the scientific parallel programme was arranged in a way that each room was dedicated to a topic.

On 8 December, the programme offered several parallel courses, most of them run jointly with other societies, these included:

- Aortic stenosis; 3D echocardiography (organised with the American Society of Echocardiography [ASE]);
- Congenital heart disease (organised with the Association for European Pediatric Cardiology [AEPAC]);
- Transesophageal echocardiography (organised with the European Association of Cardiothoracic Anaesthesiologists [EACTA]);
- Cardiac mechanics and deformation imaging; contrast echocardiography; left ventricular diastolic function (organised with the ASE).

All of the courses were very well attended and provided high-level learning opportunities.

One interesting course was on transesophageal echocardiography, entitled ‘Intraoperative Role of Transesophageal Echocardiography (TEE) in 2010’. In his lecture Guarracino (Pisa, Italy) described how to evaluate and quantify the different loading conditions. The presentation also provided basic and relevant information on how complex and challenging it is to evaluate the adequacy of preload during cardiac operations by echocardiography. In particular, the importance of analyzing the heart comprehensively in order to gain a complete assessment of morphology and function, was underlined by Guarracino, with special attention given to both systolic and diastolic dysfunction. In fact, it demonstrated how altered diastole can impact left ventricle filling, and how this can influence stroke work, either in normal or failing ventricles. Interestingly, indexes of fluid responsiveness, aiming at predicting stroke volume improvement after fluid administration were addressed, and the importance of heart–lung interactions under mechanical ventilation and their effect on left ventricle filling, were stressed. The speaker concluded that great caution is needed when evaluating the different loading conditions intraoperatively, and that such evaluation requires both a skilled and expert echocardiographer in the intraoperative scenario.

Another very interesting session focused on diastolic function. A deep insight into the diastolic physiology was provided by Gillebert T (Ghent, Belgium), and very clear examples of how it can be assessed.

Fabio Guarracino
Cardiothoracic Department, University Hospital, Via Paradisa 2, 56123 Pisa, Italy
Tel.: +39 050 995 244
Fax: +39 050 995 264
fabiodoc64@hotmail.com

Financial & competing interests disclosure
The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties.

No writing assistance was utilized in the production of this manuscript.
by Doppler evaluation of mitral inflow and pulmonary vein flow, and by Tissue Doppler velocities at the mitral annulus, were given. Particular attention was paid to the evaluation of challenging conditions, such as the patient with reduced ejection fraction, the patient with atrial fibrillation and the patient with hypertrophic cardiomyopathy. The importance of diastolic stress testing and careful grading of left ventricular diastolic dysfunction, in the light of the recent recommendations, was underlined.

On 9 December, interesting main sessions on aorta and aortic valve surgery were held. A very comprehensive presentation was given addressing the mechanisms of aortic dilatation, and special attention was given on how to measure the aortic diameters (Ribeiras, R, Sintra, Portugal) and how flow-based measurements can be used as clinical predictors of complications (Rajamannan N, IL USA). Of great interest were the insights into the molecular genetics and biology of aortopathy occurring in patients with bicuspid aortic valve disease. In addition, of great interest was a parallel session on the insights into the molecular genetics and biology of aortopathy occurring in patients with bicuspid aortic valve disease. La Canna G (Milan, Italy) and Barbosa D (Nova Lima, Brazil) addressed the problem of ‘How to select and assess patients for aortic valve reconstruction’. This was a useful session for practitioners, as both very practical and useful information was provided on the echo evaluation of aortic valve complex functional anatomy, and its relation to operative techniques for aortic valve reconstruction, in terms of supporting the surgical procedure and evaluating the final result. In my opinion the ‘take home’ message was that the management of aortic patients still represents one of the most challenging aspects of clinical practice in perioperative echocardiography, and that echo exam should always assess morphology and function, so that echo information can be usefully incorporated into clinical scenarios.

On 10 December, among other interesting sessions, a symposia on Tako–Tsubo cardiomyopathy offered an overview on this recent and challenging disease. A complete picture on morphological and functional assessment, with special attention to the coronary flow velocity pattern and coronary flow reserve was given. Also, a provocative question asked whether clinical and echocardiographic exam are sufficient to diagnose Tako–Tsubo syndrome. The value of cardiac magnetic resonance in the diagnostic work-up was presented, providing other insights on new noninvasive imaging modalities.

With the aim to merge different imaging techniques and scenarios, a main session on advanced echo techniques in the catheterization laboratory was organized. Interestingly, the speakers provided an overview on the application of an ultrasound exam in several procedures, including transluminal septal myocardial ablation (Ten Cate FJ, Rotterdam, The Netherlands), left appendage closure (Sievert H, Frankfurt, Germany), imaging in electrophysiology and echo for support of stenting procedures in the aorta (Guarracino). This last presentation underlined the importance of transesophageal echocardiography during aorta stenting. TEE exam was reported to guide the wire placement in such difficult cases, to select the most appropriate landing zone for the stent and to check for residual leaks. The latter issue was addressed in particular, as TEE is much more sensitive for endoleaks than fluoroscopy and allows to plan a strategy to get the best result in aortic stent implantation. Caution was advised for difficult cases, including aortic dissection type B, where double lumen aorta can make the procedure particularly challenging.

The Congress offered delegates the opportunity to participate in high-quality sessions on the last day, 11 December, some highlights were ‘The difficult patient with mitral regurgitation’, ‘Source of emboli, systemic diseases, cardiac masses and aorta’, ‘Multimodality imaging in left ventricular dysfunction’ and ‘Echo in transcatheter aortic valve implant’.

In my opinion, all presentations and lectures during the EUROECHO Meeting were of high quality, covering the assigned topics in extensive detail. The local organizers and the international scientific committee did their best to prepare a high-quality, and hopefully, a long-remembered meeting in Copenhagen. I believe they were really successful, prompting many colleagues to plan to attend the EUROECHO 2011 in Budapest, Hungary on 7–10 December 2011.