

The Teaching of Echocardiography in 2018: Evolution from the Beginning and What Can We Improve?

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The Department of Echocardiography (DEPECO) was officially created in 1987 at the General Meeting of the 43rd Conference of the Brazilian Society of Cardiology in Brasília. At the first General Meeting of the Department, in 1988, during the 44th Conference of the Brazilian Society of Cardiology in Belém, the Brazilian Journal of Echocardiography was created. At the same time, it was decided that a National Conference on Echocardiography would be held annually in the first half of the year and an International Symposium would be held annually in the second half of the year, in order to disseminate the method throughout Brazil. Thereafter, 30 years ago, the means for disseminating and teaching echocardiography in Brazil were implemented. In 1989, the First Brazilian Conference on Echocardiography was held in the city of Rio de Janeiro; in 2009, the 21st Brazilian Conference on Echocardiography and the First Symposium of the newly created Department of Cardiovascular Imaging (DIC) were held in Fortaleza. To promote the inclusion and integration of echocardiography and other procedures of cardiovascular imaging, the First Conference of the Department of Cardiovascular Imaging and the 23rd Brazilian Conference of Echocardiography were held in Brasília, in 2011.

In this period, the technological evolution was fast and intense. In echocardiography, we had a remarkable development. Initially, in the 1970s, with Mode M; in the 1980s, with two-dimensional and Doppler, which made it possible to diagnosis and evaluate most heart diseases; then, color flow mapping, transesophageal echo, three-dimensional echo, tissue Doppler, speckle tracking, and many technical resources that improved the resolution of the images and enabled the early and accurate investigation of pathophysiological abnormalities in a number of pathologies. Besides, equipment resources can be applied in different situations (under-stress echo, transoperative echo, fetal echo and microbubbles etc.), which require additional learning and training.

Good medical training is key to an accurate echocardiographic diagnosis. As we suggested in 1991, the title of cardiologist is a prerequisite for those wishing to get a certificate in the field of echocardiography. Echocardiography is an operator-dependent

test. Correct diagnosis depends on the combination of three variables: knowledge and limitations of the resources offered by the equipment; proper training for good imaging acquisition; and data interpretation based on good medical training. Therefore, the teaching of Echocardiography includes multiple fundamental and complementary steps.

The digital age provided major progress in all human activities and was key in the dissemination of knowledge. For theoretical education, the DIC website, created about two decades ago, offers an online journal, as well as classes and videos addressing multiple subjects. The Clinical Key gives access to the main international journals and guidelines. The practical training can be offered in previously accredited public and private Training Centers. As reported in the Minutes of the General Meeting of the 3rd Conference of the DIC, in 2013, the department had registered 150 Training Centers. At the public centers, in general, training is preceded by one year of medical practice and two years in Cardiology, according to the rules of medical residency.

A constant improvement process for the learning of Echocardiography has been one of the main goals of the department's divisions since its foundation. In response to the invitation to write this brief editorial, we have some suggestions that could be implemented:

1. Promote greater integration of imaging diagnosis procedures, for each pathology, at the conferences; emphasize the indications and limitations of each technique in order to avoid its indiscriminate use.
2. Make it official to hold symposia during regional and/or state conferences, taking knowledge to other regions of Brazil than Rio, São Paulo and Belo Horizonte.
3. To improve the classes by covering the imaging modalities on the department's website, including subjects similar to those mentioned in the first suggestion; make available to all members, free of charge, the main activities addressed in the conferences that may contribute to education.
4. Create a space on the website where the colleagues can ask questions by submitting a clinical summary and clips of the test, such as it is done on WhatsApp. A team of experts on each area would respond online on each case.
5. The creation of the DIC Distinction seal evaluated by IQG is a great achievement. We are aware of the existence of excellent training centers, but a page on which those interested can search the address, the period and the duration of accredited courses (150 in 2013 – SIC) would be of great value.
6. There are good quality books on the market. However, I believe it would be advisable to prepare an official DIC book such as the one prepared by SBC, which could be updated every 2 or 3 years.

Keywords

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Editorial
