In last month, an intriguing discussion has been raised by Dr Khayyal on the EACVI Club 35 LinkedIn platform “Young Network of Cardiovascular Imaging” about the new ASE/EACVI recommendations for chamber quantification, particularly concerning the evaluation of the right ventricle, the range values for defining it as normal and the severity grading of dilatation.

In summary, in the new guidelines the RV basal diameter is normal up to 41 mm, mid-diameter up to 35 mm. Actually there is not a distinction in severity grades, so we could distinguish only normal and abnormal RV. Conversely, in the 2005 guidelines, the basal and mid-diameter limits were 28 and 33, respectively, and there were identified severity grades for RV dilatation.

In response, Dr Badano has promptly explained that the new limits provided (i.e. 41 mm basal diameter, which before was considered a severe grade of dilatation) are the result of a recent meta-analysis of data from 695 healthy subjects collected from 12 different studies.

Secondly, explaining that the distinction between different severity grades in the previous guidelines was based on expert consensus and not on published prognostic data.

Nevertheless, Dr Khayyal and Dr Stankovic reflected that this lack of evidence-based data should not stop the expert and that it should be a reason to give a helpful expert statement.

Therefore, regarding the assessment of RV measures, Dr Badano and Dr Augustine rightly reported that the evaluation of a larger population (over 600 subjects) makes the values more robust, values that are reported in another study and in last recommendations for RV analysis, as Dr Timeshova quotes.

Regarding RV status, Drs Forshaw, Augustine, Badano, Vasco, and Professor Surkova agree that it is not absolutely reasonable to make a decision based on a single number; this is even more true considering the particular and complex RV structure; another issue is the role of RV functions that has been until now slightly undervalued.

As such, in addition to the concept that 3D echocardiography RV analysis is promising and useful for the assessment of the RV morphology and dimension, as Dr Stankovic advised, we should also evaluate RV function with traditional and innovative techniques.

In fact for this aim, we are supported by techniques such as tricuspid annular plane systolic excursion (TAPSE), Doppler tissue imaging (DTI)-derived S’ wave, RV fractional area change (FAC) and, as Professors Surkova and Mondillo highlighted, we should also introduce the speckle tracking echocardiography technique and the free wall longitudinal strain, considering the recently demonstrated strong correlation with both RV function measured by cardiac magnetic resonance (CMR) and prognosis in patients with advanced heart failure.

In conclusion, we may base our evaluation on general RV status, dimension, load, and function, because, reporting Professor Surkova’s example, we should pay more attention to a patient with a dilated right ventricle which also has an important tricuspid regurgitation or elevated PAPs than a patient with the same ventricle dilatation but a mildly tricuspid regurgitation or normal PAPs.

Conflict of interest: None declared.

References
2. Lang RM, Bierig M, Devereux RB, Flachskampf FA, Foster E, Pellikka PA et al. Recommendations for chamber quantification: a report from the American Society of Echocardiography’s Guidelines and Standards Committee and the Chamber Quantification Writing Group, developed in conjunction with the European Association


Percutaneous closure of giant left appendages

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We present two patients in chronic non-valvular atrial fibrillation with absolute contraindication to anticoagulation who were initially rejected for percutaneous closure of the left atrial appendage (LAA) due to the large size of it. Two devices have made the percutaneous closure of both appendages successful at our centre, AMULET (St Jude) devices with a diameter of 34 mm and an ehnavigator (Philips), which allows the fusion of X-ray fluoroscopy and echocardiography images in two and three dimensions in real time to guide the procedure.

Case 1
Echocardiography, computed tomography, and angiography (Panels 1AC) show an appendage of 26 × 32 mm size with very wide, short neck (10 mm), hammer-shaped distal lobes. The AMULET 34 mm device was placed in the neck slightly projecting an edge to the left atrium, with little compression but with stability (Panel 1F).

Case 2
With echocardiography (Panel 2A), a large appendage sac with distal lobes (33 mm × 25 mm) is objective. The AMULET 34 mm device was fitted into one of the distal lobes, with acceptable compression and stability (Panel 2C).

In both cases, the fusion of fluoroscopy and echocardiography images (Panels 1D, 1E, and 2B) allowed us to visualize the invisible anatomical structures with fluoroscopy and prevent complications, reduce the amount of contrast, and reduce the procedure time. Both patient recovered without complications and one month follow-up echocardiogram confirmed correct device position.

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