ASE Industry Webinar
Q&A Handout

1. **Along with strain imaging due you follow length of line to be sure the imaging axis is the same between studies?**

To ensure GLS reproducibility it is critical to acquire standard good quality 4ch. 2ch and 3ch views. Avoid foreshortening as that would lead to overestimation of apical strain values. It is also important to measure blood pressure. In case of severe hypertension measurements would be lower than previous

2. **Can I assume all echoes are done with contrast for serial follow up echo to provide accurate EF, LV Vol etc.?**

Contrast should be used only if indicated according to the current guidelines. In fact, it may lead to higher LVEF measurement variability (Thavindiranathan JACC 2014). May not improve 3DE and interferes with GLS quantification.

3. **Have you begun to use 3D EF for serial echo's to follow the patients through serial echo's?**

3DEF has shown to be more reproducible and have better correlation with MRI EF than 2DEF and should be utilized if possible. However, feasibility and lack of technical expertise have limited its widespread use.

4. **Are the echo orders always a complete exam or a limited exam for serial echo's?**

A limited exam during follow up is a good strategy to save time in patients without CV symptoms undergoing serial studies for surveillance.

5. **Do you still relay on 3D EF if the imaging is less than optimal?**

One of the main advantages of 3DE is its automaticity. When we need to edit a lot of the automatic quantification reproducibility decreases. In case of poor image window, we prefer CMR

6. **My question is if there is any evidence or perspective to study more the segmental strain abnormalities, even with normal GLS.**

the main problem we have now with segmental strain is the reproducibility. We have some evidences on its usefulness in ischemic heart disease but we do not have robust data in cardio-oncology

7. **How is Echo strain results correlate with MRI-based cardiac strain quantification?**

no direct experience. In fact, ECHo and CMR software's do not measure exactly the same. Using CMR Circumferential strain is more reproducible

8. **In this setting there is any data on an apriori use of Sacubitril Valsartan?**

We do not have randomized trials but some preliminary data (retrospective small registries) have been published on the use of SAC/VAL to treat cancert therapy induced myocardial dysfunciton with good results. Until further data becomes available, recommend following GDMT for management of CTRCD.

9. **Due to difficult windows, how could we recommend CMRI to help the oncologist decision? Could we use the pro-BNP plus strain echo to make this recommendation if CMRI is not available?**

The combination of Echo and biomarkers increases negative predictive value. In patients with poor echo window CMR is recommended to quantify myocardial function regardless BNP levels

10. In your experience what's the role of RV function in predict/assess if patient will develop cardiotoxicity?

A few studies suggest that early changes in free RV long strain detect subclinical cardiotoxicity along with GLS changes in the LV though RV strain has not been incorporated into routine monitoring protocol.

11. Do you use same machine, with same operator and same parameters when performing F/U studies for the pt.?

We use the same parameter for F/U studies. In big centers is impossible to use the same machine and the same operator for a huge number of patients. What is more important is to use the same vendor

12. What's your opinion regarding GCS to follow up Cardio-onc patients?

Good results in experienced hands

13. With GLS endo / mid / epi differences?

Yes, you need to be sure what your software measures to use the same parameters during F/U. GLS highest at the endo level and lowest at the epi level.

14. F/U to my previous Q, same reader as well?

Not necessary as long as readers are well trained.

15. Are there specific studies for the prevention of the Adriamycin Cm?

Yes, there are. Most recent ICOS-one. CECCY study JACC 2018

16. Is sacubitril given for asymptomatic but low LVGLS?

No evidence-based data so far available to show that HF treatment (BB/ACE/ARB) improves outcome in patients with abnormal GLS.

17. Do you follow the length of line with strain imaging to be sure images are not foreshortened from study to study?

Yes, it is critical to optimize 2D views to ensure good reproducibility. Plus, foreshortening leads to incorrect apical GLS.

18. Is LA Strain used as a very early marker of Cardiotoxicity, same way RVEF & RVGLS?

Not now.

19. Amazing lectures, thank you very much to all Professors. What to do when we cannot perform an echo in our patients (bad acoustic windows)? What image technique should we use? How should we follow up that patients?

CMR

20. Hello, what do you think about the future of CMR myostrain? It will improve our actual tools?

Myostrain is a promising tool but the availability of CMR in daily practice may be a limiting factor.

21. Does the panel see a need for cardiovascular screening for long term cancer survivors with no obvious cardiovascular symptoms?

Sure, yearly CV screening is recommended.

22. When serial echocardiography shows decrease in EF by 3D, is an CMRI usually performed to correlate EF?

Not necessary if echo quantification is fine

23. What about echo 3D strain and mechanical dispersion?

Not enough experience in clinical practice though 3D mechanics has shown to be superior than 2D indices in the research setting (Zhang KW, JACC imaging 2018)

24. What is your opinion on valsartan/sacubitril or ranolasine treatment in patientis with CTRCD?

We need to follow HF guidelines.

25. How long we have to do gls and 3d echo in chemotherapeutic patients?

During therapy in high risk patients. At the end of treatment to assess cardiac function and in high risk cancer survivors.