SUMMERY AND CONCLUSION

Trans-esophageal echocardiography is a useful technique in assessment of LAA velocities, as well as in assessment of RAA functions and in flow velocities

The study has high lightened on importance of assessment of LAA functions, RAA functions & LAA, RAA thrombi formation in relation to the presence of atrial fibrillation due to both valvular and non valvular AF Patients.

This study included 50 patients presented to National Heart Institute (between 2009&2010) for assessment by TEE, 25 patients' with chronic valvular AF and 25 patients with non-valvular AF.

All patients included in the study were subjected to complete history talking, careful clinical examination, resting 12 leads surface ECG, plain chest x-ray , trans-thoracic echocardiography to determine etiology of AF., presence of valvular lesions and assessment of its severity, LV ejection fraction, cardiac chamber dimensions, wall motion abnormalities, mitral valve area .

Trans-esophageal echocardiography was also performed to detect RA, LA size, RAA&LAA flow velocities (emptying & filling) presence of intra atrial & intra auricular thrombi & smoke.

We found the following results:

- Population characteristics did not differ significantly between the two groups.
- Patients with chronic non-valvular AF had significantly larger RAA area than those of chronic valvular AF. However, RA diameter did not differ significantly between the two groups.
- Patients with chronic valvular AF had larger LA and LAA area than those of chronic non-valvular AF, but that difference did not reach statistical significance.
- TEE showed that in valvular AF patients, 7 patients of 25 (28%) had thrombi confined to the left atrial appendage and 2 patient of 25 (8%) had thrombus confined to the right atrial appendage.
- TEE showed that in patients with non-valvular AF, we found 3 of 25(12%) had thrombi confined to the left atrial appendage and 2 of 25 (8%) had thrombi confined to the right atial appendage.
- LAA and RAA flow velocities did not differ significantly between the two groups.

Conclusion:

- In conclusion, our findings suggest that AF could affect both atria equally in non-valvular AF, in contrast to valvular AF which affects LA mainly.
- The assessment of RAA function is important as LAA assessment in patients with chronic non-valvular AF, as RAA may develop thrombus formation giving a risk of showering as LAA.

Limitations:

- The technique is expensive for some patients.
- Patients suffering from esophageal varices or recent esophageal surgeries.
- Many patient documenting presence of chronic AF by history but, they have no documenting ECG.
- Small number of the patients.

Recommendations:

- We recommend studying the relation between RAA function and the other hemodynamic variables as right heart pressures and volumes.
- A larger study is also recommended for future continuation to support our study results.