Summary and Conclusion

Twenty five patients with congenital heart disease were subjected to the use of TEE as a diagnostic tool to be compared with TTE for the same patients, in outpatient. This was done in the pediatric cardiology unit in the children's hospital, Faculty of Medicine, Cairo University.

All patients were subjected to thorough history taking, clinical examination, plain X-ray, ECG, and TTE.

All patients were subjected to TEE in the ECHO laboratory. The TEE probe was a biplane one. (14 mm width).

Male to female ratio was 1.77.

Mean age of patients was 7.12 ± 3.75

Mean weight of patients was 22.12 ± 10.11

Out patients TEE procedure was completed by using pre-medication (deep sedation) in the form of ketanine IM then IV and midazolam 0.1 mg/kg IV in bolus doses as synergistic drug and under monitoring of vital signs with oxygen saturation. The study included cyanotic (28%) and non-cyanatic CHD (72%) with a variety of heart lesions.

Results can be summarized as follows:

The use of Ketamine and medazolom for deep sedation during outpatient TEE setting has satisfactory results.

TEE procedure is a safe procedure with no major complication or mortality with proper choice of probe size. Probe insertion problems and

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Results can be summarized as follows:

The use of Ketamine and medazolom for deep sedation during outpatient TEE setting has satisfactory results.

TEE procedure is a safe procedure with no major complication or mortality with proper choice of probe size. Probe insertion problems and

airway obstruction comprised to the majority of complications. Care must be taken during insertion of the TEE probe.

TEE examination is significant in 88% of our cases.

ASD is one of the cardiac lesions which the use of TEE is beneficial in all stages of management of ASD 75% more significance.

Complex congenital heart diseases require TEE to complement the diagnosis by TTE providing helpful, critical data missed in diagnosis by TTE.

Mitral regurge and mitral valve morphology is still one of the field of research not completed, that still needs more researches to establish the sensitivity and specificity of TEE in diagnosis.

All patients with **unexplained right ventricular dilatation** and pulmonary hypertension should have TEE.

Systemic and pulmonary venous return lesions benefited from the use of TEE as a complementary tool added to TTE.

Unroofing of the dilated coronary sinus lesions benefited from the use of TEE which not appeared by TTE.

Complications were encountered in 8% of patients, this was attributed to the O_2 desaturation in one case and the need of more sedation in another case.

For all what mentioned before we **conclude and recommend** the following:

1. TEE though safe and reliable, still invasive procedure that should be done in selective cases of CHD in pediatric age group which need it.

2. **TTE examination** of all case with **ASD** is a must to evaluate the size of the defect properly.

3. Further studies with **pediatric sized probe** of TEE should be instituted in the future.