



SAFETY AND FEASIBILITY OF SAME-DAY ON-TABLE PERIPROCEDURAL TRANSOESOPHAGEAL ECHOCARDIOGRAPHY FOR LEFT ATRIAL APPENDAGE OCCLUSION DEVICE SIZING

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Objectives:

To study the safety and feasibility of same-day on-table periprocedural transoesophageal echocardiography (TOE) in left atrial appendage occlusion (LAAO) to improve resource utilisation in a central healthcare system.

Background:

LAAO is a therapeutic alternative in atrial fibrillation, obviating the need for long-term anticoagulation in patients with high bleeding risk. The COVID-19 pandemic however posed an unprecedented impact on healthcare systems worldwide, effectively leading to a suspension of elective cardiac procedures. Transoesophageal echocardiography was deemed a high-risk aerosol generating procedure and was only performed when the benefits outweighed the risks of cross-contamination, hence TOE for LAAO sizing was deferred.

Methods:

Retrospective analysis of a consecutive series of cases undergoing implantation of LAAO devices from September 2020 to August 2022. Procedures were performed in a single large academic hospital in the United Kingdom.

Results:

A total of 27 sequential cases underwent LAAO implantation. Mean age was 77 ± 7.7 years, with a male predominance (55%). Permanent AF (n=19), persistent AF (n=5) and paroxysmal AF (n=3). Mean CHADSVASc was 5 ± 1 with mean HASBLED score of 4 ± 1 . Same-day on-table periprocedural TOE was performed in 23 cases, with successful deployment achieved in 91% of cases (n=21), compared with complete success in the other group (n=4). Amulet was the most commonly deployed device (52%). Mean fluoroscopy times were similar (12.5 ± 6.7 mins vs. 9.5 ± 2.4 mins; $P=0.12$), however as expected procedural times were higher in the same-day on-table periprocedural TOE group than those with TOE imaging performed prior (85.2 ± 28.1 mins vs. 61.3 ± 6.3 mins; $P=0.002$). There were no cases of pericardial effusion, no vascular complications or device embolization.



Conclusion:

Same-day on-table peri-procedural TOE imaging for LAAO sizing is safe and feasible, especially at a challenging time of limited healthcare resources in the United Kingdom.

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