Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Aim: Comparison between TOE and TTE-"guided" TAVR cases to determine differences in procedural efficiency.

Methods: Procedural details for all TAVR cases in a single centre were reviewed. Efficiency indicators of procedure time (arterial puncture to vascular closure), fluoroscopy time, radiation dose and contrast volume were collated.

Results: 186 TAVR cases since March 2016 were included (81.3±6.7yrs; 54% males). 136 (73%) procedures were performed with TOE and 50 (27%) using TTE from April 2019 onwards. No significant differences in radiation dose (TOE 1447.6±902.5mGy vs TTE 1220.4±857.5mGy; p=0.125) or contrast volume (TOE 189±102.1mL vs TTE 169±84.2mL; p=0.216) were observed. Lower fluoroscopy time (TOE 25.4±18.2minutes vs TTE 18.1±6.4minutes; p=0.014) and procedure time (TOE 87.7±50.1minutes vs TTE 61.2±17.0minutes; p<0.001) were noted in the TTE cohort. Subgroup analysis of TOE cases in the same period following commencement of the "minimalist" approach revealed similar findings. This latter result may reflect increased operator experience and confidence.

Conclusion: Conscious sedation and peri-procedural TTE in established TAVR centres with experienced operators appears to be as technically efficient as TOE-guided cases. The minimalist TTE approach may be the default standard of care with TOE reserved for challenging cases when additional imaging guidance is required. Correlation with clinical outcomes would be useful for further validation.

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206

Effect of Modified Echocardiography Service During the COVID-19 Pandemic on Patients With Infective Endocarditis

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Background: Echocardiography, transthoracic (TTE) and transoesophageal (TOE), are integral to the management of infective endocarditis (IE). The impact of modified service during the COVID-19 pandemic is unknown.

Method: Audit comparing the incidence of IE and utilisation of echocardiography during the 7-month peak of the Australian COVID-19 pandemic to the same period in 2019.

Results: Incidence of IE increased comparatively during the COVID-19 period. In 2019, all 13 patients underwent TTE and 62% TOE, with an average delay from first positive blood culture of 3±2 days and 14±18 days, respectively. In 2020, all patients received TTE and 29% TOE, with mean time to TTE 4±3 days and 4±2 days for TOE. Between 2019 and 2020, there was no difference in the use of (1.6 vs 1.5, p=0.9), or delay to TTE (3.2 vs 3.6 days, p=0.7), or TOE (15 vs 5 days, p=0.2). In 2020, there was a trend towards presumptive management (23% vs 59%, p=0.05) due to stricter criteria for TOE (0.8 vs 0.3, p=0.04). Despite this, no difference in length of hospitalisation, mortality, cardiac events, or readmissions was evident.

Conclusions: Our data demonstrate stricter criteria for TOE during the COVID-19 pandemic had no effect on patient flow or outcomes. Despite recommendations for TOE to confirm diagnosis (Class I) and routine re-assessment (Class IIa) in IE, our data suggests presumptive treatment and more selective indication directed approach is efficient and safe. Our pandemic experience, demonstrates adaptation of IE pathways and highlights the possible modification of current guidelines.

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207

Embolic Myocardial Infarction Post Transcatheter Aortic Valve Implantation due to Sinus of Valsalva Thrombus—A Case Series

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Introduction: Transcatheter aortic valve implantation (TAVI) can be associated with thrombosis, which classically manifests as hypo-attenuated leaflet thickening (HALT) [1]. HALT is usually subclinical but can be associated with stroke, increased transvalvular gradients and heart failure [2,3]. Sinus of Valsalva thrombus is less common and typically subclinical [4].

Myocardial infarction (MI) after TAVI may relate to device malposition, plaque shift from native valves, protrusion of native leaflets into coronary ostia, embolism, in-situ coronary thrombus, hypersensitivity reactions and accelerated atherogenesis [5]. To date, few studies describe MI related to HALT. We describe the first case series of MI post-TAVI due to sinus of Valsalva thrombus and secondary coronary embolism.

Cases: Case 1: An 82-year-old female presented with MI 2 years following TAVI. Angiogram demonstrated normal coronary arteries and thrombus at the base of the left aortic sinus. Computed tomography (CT) scan demonstrated partial thrombus of left and right coronary sinuses, and almost complete thrombosis of the non-coronary sinus.

Case 2: A 79-year-old male presented with anterior MI 4 months post-TAVI. Angiogram demonstrated acute mid-LAD occlusion, despite minor disease on angiography one year prior. Heparin was commenced with resolution of ST-elevation.

Case 3: An 88-year-old presented with an anterolateral MI 2 years post-TAVI. Angiogram demonstrated minor coronary artery disease- however, aortogram revealed left coronary sinus thrombosis.

Discussion: In all cases, sinus of Valsalva thrombus was postulated to cause embolic MI, forming the first case series to describe this phenomenon. This may have important clinical implications relating to post-TAVI anticoagulation, and optimal management of MI in TAVI patients.