CARDIOVASCULAR FLASHLIGHT

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Intravenous thrombolysis for bioprosthetic valve thrombosis

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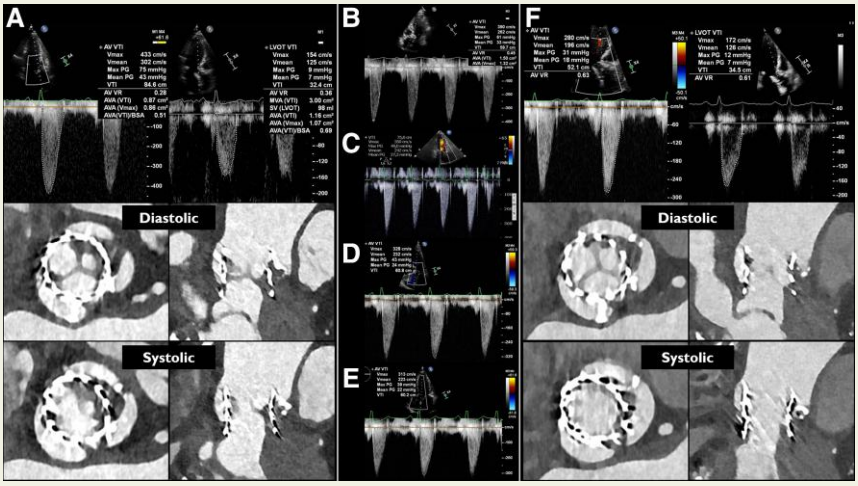
A 77-year-old woman experienced new-onset dyspnoea on exertion 1 year after alcohol septal ablation and transcatheter aortic valve implantation (TAVI) with a balloon-expandable valve for symptomatic severe aortic stenosis and basal septal hypertrophy.



Transthoracic echocardiographic assessment (TTE) revealed an incremental transvalvular peak velocity from 2.9 m/s 3 days after TAVI to 4.3 m/s. Multislice computed tomography (MSCT) demonstrated hypoattenuated leaflet thickening (HALT) of all leaflets and reduced leaflet motion (RLM) of one leaflet (*Panel A*). Her antithrombotic regimen was changed from apixaban 5 mg bi-daily to acenocoumarol with a target international normalized ratio (INR) of 2.5–3.5. Six weeks later, symptoms persisted and the transvalvular peak velocity was 3.9 m/s (*Panel B*). A decision was made to attempt to resolve the thrombus with repeated intravenous infusions of alteplase.[1,2] Four sequential infusions of 25 mg alteplase/25 h resulted in an uneventful but stepwise decrease of the transvalvular peak velocity to 2.8 m/s (*Panel C–F*). Multislice computed tomography confirmed normalization of leaflet motion with some residual remaining leaflet thickening (*Panel F*). MSCT cine images before and after alteplase infusion are available in the Supplementary data online (*Videos S1* and *S2*).

Clinical valve thrombosis is relatively uncommon after TAVI but has serious clinical implications including a risk for thrombo-embolic events and heart failure.[3,4] Intravenous low-dose thrombolytic therapy may resolve clinically significant valve thrombosis after TAVI when oral anticoagulant regimens have failed.

Supplementary data is available at *European Heart Journal* online.

No data were generated or analysed for this manuscript.

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