Implications of variability in definition and reporting of major bleeding


A 91-year-old immunocompetent man with severe aortic stenosis due to senile dystrophic calcification underwent transapical aortic valve implantation (TAVI-Edwards Sapien 23 mm). Major risk factors contraindicating surgical intervention were chronic kidney disease and pulmonary hypertension.

Immediate post-TAVI transesophageal echocardiography showed no insufficiency and normal flow profile across the prosthesis. Postoperatively, the patient presented intermittent fever up to 38 °C, and he required endotracheal intubation due to respiratory failure and septic shock and died during hospitalization 54 days after TAVI. White blood cell count was abnormal starting on the second post-operative day, with a peak of 3.7 × 10^9/L 3 days before death. C-reactive protein was constantly increased as well as erythrocyte sedimentation rate with a peak of 280 mg/L and of 102 mm/h, respectively. Microbiological investigation on bronchoalveolar lavage and blood cultures was positive for Candida albicans and the patient was treated intravenously with an anti-fungal drug, with blood culture negativization.

During the follow-up, transthoracic echocardiography documented a transvalvular aortic gradient of 20/10 mmHg (max/mean) with early mild paravalvular leak that disappeared thereafter.

At gross examination, a prosthetic valve stenosis was detected with large, polypous friable vegetations that completely occupied and blocked a pericardial cusp (Panel A) and extended along the mitroaortic fibrous continuity (Panel B).

Histological study using several stains (Panels C, HE, and D, PAS; inset, Grocott) showed clusters of Candida type yeasts, hyphae, and pseudohyphae entrapped within a fibrin network with platelets, red cells, and leukocytes.

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