

Severe mitral valve infective endocarditis with widespread septic emboli in a patient with permanent hemodialysis catheter

Kalıcı hemodiyaliz kateteri olan hastada ileri derecede mitral kapak infektif endokarditi ve yaygın septik emboli

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A 50-year-old man has become hemodialysis dependent 2 years ago, following hypertensive and diabetic nephropathy. During the last 2 years he had experienced failure of permanent subclavian catheter, thrombosis of temporary jugular catheter, of arteriovenous fistula (AVF), and then of permanent jugular catheter. Three months after implantation of the permanent jugular catheter, he had been admitted to our hospital with dyspnea, high fever (38.50C), vomiting, nausea, tremble, and recently developed lesions of extremity. On physical examination we found painful ulcerating necrotizing lesions of his toes and left fingers (Fig. 1 and 2). His blood pressure was 140/90 mm Hg, heart rate 100 beats/min and rhythmic. He also had a diastolic murmur at the mitral area. Respiratory sounds were decreased in the left lower lung area. Laboratory testing revealed a leucocyte count of 33100/mm³, 31700/mm³ of them were neutrophils; haemoglobin, 8.08gr/dL; serum urea, 242mg/dL; serum creatinine, 9.1 mg/dL; serum glucose, 150mg/dL, serum potassium, 5.1 mEq/dl; and a sedimentation rate of 90mm/h. Blood cultures were reported positive for methicillin-sensitive S.aureus. Skin biopsy from



Figure 1. Necrotizing lesions of the left toes



Figure 2. Necrotizing lesions of the left fingers



Figure 3. Large vegetation at the left atrial side of the posterior leaflet of the mitral valve on transthoracic echocardiogram

the necrotizing lesions demonstrated dense neutrophilic infiltration. Transthoracic echocardiography demonstrated significant mitral insufficiency, as well as 3.18x1.44 cm large vegetations of the posterior leaflet of the mitral valve (Fig. 3). Computed tomography revealed splenic infarcts (Fig. 4). Diagnosis of endocarditis was made accordingly. The tunneled hemodialysis catheter was removed. The patient was treated with ceftriaxon, teicoplanin, metoprolol, diuretic, acetylsalicylic acid, intensive insulin and renal replacement therapy. Five days later patient presented with increasing shortness of breath with pulmonary oedema. Patient underwent mitral valve replacement by a bioprosthetic valve on the 14th day of the hospitalization and showed immediate hemodynamic and clinical improvement.

Tunneled catheters for hemodialysis access may result in a larger pool of patients at risk for endocarditis. In presence of better alternatives there is no ethical justification for the generalized and uncontrolled use of catheters, which are known to shorten life expectancy of patients.

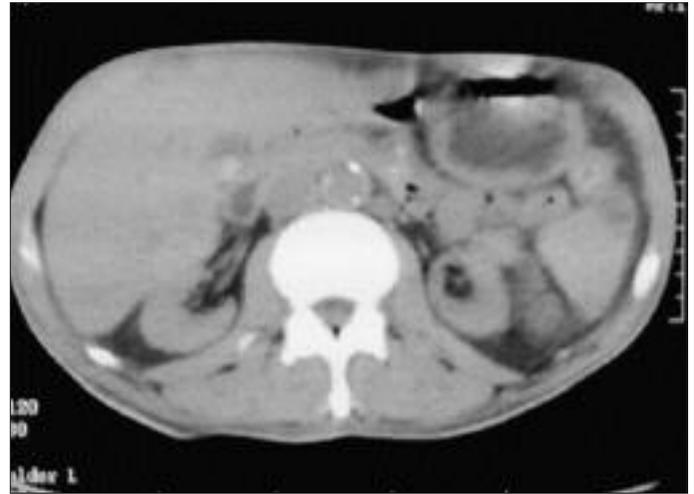


Figure 4. Splenic infarcts in computerized tomography.