Abstract: P1689

Effusive-constrictive pericarditis in a patient with end-stage renal disease.

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Topic(s):
Imaging: Pericardial Disease

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End-stage-renal-disease (ESRD) is associated with possible pericardial involvement, which is manifested most commonly as acute pericarditis or chronic pericardial effusion and infrequently as chronic constrictive pericarditis.

A 51-year-old patient with ESRD, in the course of glomerulonephritis, chronically dialyzed, initially with peritoneal dialysis, currently with hemodialysis, renal transplantation twice, after nephrectomy because of adenocarcinoma of transplanted kidney, he was admitted to the Clinic due to deterioration of effort tolerance, peripheral edema, elevation of inflammation parameters. In laboratory tests, initially CRP-137 mg/l, procalcitonin not elevated, negative blood cultures.

ECG showed atrial fibrillation, low voltages of QRS.

Echocardiographic examination (TTE) revealed pericardial fluid, normal left ventricular (LV) dimension, preserved systolic function (EF-58 %), restrictive filling pattern of LV and RV, respiratory variability of mitral peak E velocity of > 25%, inspiratory ventricular septal motion toward LV- septal bounce, enlargement (2.3 cm) and absence of respiratory collapse of vena cava inferior (VCI). In the computed tomography (CT) of the chest and abdominal cavity, no process of neoplasia character was found. In the pericardial sac, a fluid of approx. 18 mm thickness and density 10-20 jH, thickening of pericardium layers to approx. 2.8-3 mm, contrast enhancement of pericardium layers, marked obliteration of adhering adipose tissue with the presence of higher densities and contrast reflux to inferior vena cava and hepatic veins are depicted.

No specific etiology for pericarditis was found after numerous serological and bacteriological studies. In laboratory tests, non-increased cardiac enzymes (troponin, CK, CK-MB), negative tumor markers (AFP, CEA, CA 15-3, CA 19-9), non-reactive virological tests in the IgM class (CMV, EBV, Enterovirus, Coxackie) , Quantiferon-TB negative test.

Due to the features of active exudative-constrictive pericarditis found in imaging studies and elevated inflammatory parameters in the patient, dialysis was optimized and anti-inflammatory treatment was initiated: ibuprofen initially at a dose of 3 x 600 mg, and it was decided to administer colchicine 0.5 mg 1 x 1 tablet. In a follow-up examination after one month, improvement of clinical status, in TTE reduction in the amount of pericardial fluid, normal size and respiratory mobility of the inferior vena cava, respiratory variation of the mitral peak E velocity was smaller.

Although ESDR is a rare cause of exudative-constrictive pericarditis, if symptoms of this condition appear and in the presence of active inflammatory features (elevation of CRP, contrast enhancement of pericardium on CT), after the optimization of dialysis therapy and the inclusion of anti-inflammatory treatment, the features of pericardium constriction can be reversed. Such a management may prevent the need for pericardiectomy.
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