A heart-like cystic image in the heart

Kalp içinde kalp şeklinde görünüm

A 26-year-old woman was admitted to our hospital with complaints of dyspnea and near syncope that have been continued for last 6 months. Clinical examination was unremarkable except for a 2/6 grade systolic murmur at the left sternal border. The electrocardiogram showed sinus rhythm with a heart rate of 100 beats/min and incomplete right bundle branch block. There was no any pathological finding at initial blood work up. Blood and urine cultures were negative. A chest X-ray showed cardiomegaly. The transthoracic echocardiography revealed a round shaped, unilocular, double layered and well defined cystic lesion in the interventricular septum (IVS) protruding into the atrial septum and tricuspid septal annulus with a trivial pressure gradient (Fig. 1, Video 1. See video/movie images at www.anakarder.com). There was circumferential pericardial effusion with no hemodynamic significance. Cardiac magnetic resonance imaging (MRI) showed a cystic mass in the basal IVS near the left ventricular out flow tract and tricuspid septal annulus, 41x28 mm in size and pericardial effusion (Fig. 2A, B). On third day of hospital admission, a subsequent echocardiography was performed because of retrosternal chest pain and sudden dyspnea. Echocardiography established massive pericardial effusion and cardiac tamponade (Video 2. See video/movie images at www.anakarder.com). After emergency pericardiocentesis was carried out, she was operated urgently on under cardiopulmonary bypass and cardioplegia. The pathologic and cyto logic examination of fluid demonstrated free hemorrhage and subacute inflammatory findings.

What is your diagnosis?
1. Angiosarcoma
2. Hydatid cyst
3. Congenital pericardial cyst
4. Myocardial abscess

Video 1. Transthoracic echocardiography; apical five-chamber view; a cystic mass resembling a heart figure in the diastole

Video 2. Transthoracic echocardiography; massive pericardial effusion and cardiac tamponade

Figure 1. Transthoracic echocardiography; apical five-chamber view of a cystic mass (arrow) in the interventricular septum

LA - left atrium LV - left ventricle

Figure 2. Cardiac MRI, showing the mass within the interventricular septum (asterisk) and circumferential pericardial effusion (arrows) at the T2 weighted long-axis (A), coronal views (B)

Ao - aorta, Eff - effusion, MRI - Magnetic resonance imaging, RV - right ventricle

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