Hydatid cyst in the left ventricle

A 28-year-old woman who underwent surgery due to hydatid cyst of the liver was referred to our clinic when a computed tomography (CT) performed at the 6th month of follow up demonstrated thick-walled septal cysts of the liver with contoured lobe, 6x5 cm in the left lateral segment of the lob, and 6.5x4 cm in the lateral wall of heart. Cardiac examination revealed rhythmic heart sounds and normal S1 and S2 no S3 and S4 and a 2/6 mid-systolic murmur at the mitral valve area. Abdominal examination revealed a non-painful, palpable liver edge about 2 cm below the costal margin. The other systemic examination revealed normal results.

Electrocardiography showed a heart rate of 67/min with normal sinus rhythm. A Q wave and negative T wave with ST-segment elevation of 1 mm was found in lead I-aVL V4-6 derivations. Chest x-ray showed an increased cardiothoracic ratio, unobstructed sinus, cardiac apex repositioned in the upper left border and the apical area was observed to large containing mass-like structure. Furthermore, transthoracic echocardiography (TTE) demonstrated a multilobular and echogenic cystic structure with fluid and 25x60 mm in diameter, which extended towards the lateral wall in the left ventricular apex interrupting wall motion of the apical region, and separated by septa (Figure A-E). Mild mitral and tricuspid regurgitation were also detected, with an ejection fraction of 40%. Three dimensional TTE showed similar findings, whereas two dimensional TEE with subcostal view demonstrated a similar cystic structure in the liver (Figures F, G). The patient was referred to the Department of Cardiovascular Medicine for surgery.

Figures. Two dimensional transthoracic echocardiography (TEE) showing (A) two apical cavities and (B) apical cystic formations with fluid and solid structures in apical four chamber view. (C) Two dimensional TEE showing parasternal short axis view and (D) Three dimensional TEE showing a multilobular and echogenic cystic structures with fluid, interrupting wall motion, and separated by septa. (E) Two dimensional TEE with subcostal view showing a cystic structure in the liver adjacent to the right atrium and inferior vena cava. CT showing a cystic structure (F) in the liver and (G) heart. LV: left ventricle; RA: right atrium; VCI: vena cava inferior