## **CLINICAL VIGNETTE**

## A pericardial cyst case evaluated with real time 3D transoesophageal echocardiography

Torbiel osierdzia w przezprzełykowej echokardiografii 3D w czasie rzeczywistym

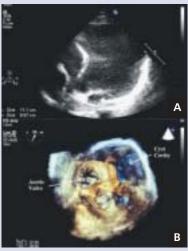
Mehmet Özkan, Beytullah Çakal, Mustafa Ozan Gürsoy, Emre Ertürk, Kaan Kirali

Kosuyolu Heart and Research Hospital, Istanbul, Turkey

A 56 year-old male presented to our institution with a history of dyspnoea and palpitation. His physical examination revealed diminished heart sounds. ECG demonstrated sinus tachycardia, left axis deviation and reduced QRS amplitude without ischaemic changes. X-ray showed enlargement of the cardiac silhouette at the left margin of the heart (Fig. 1). Transthoracic echocardiography revealed an  $11.0 \times 8.7$  cm cyst-like hypoechogenic and homogeneous structure at the pericardium neighbouring the anterolateral wall of the left ventricle (Fig. 2A). Using real time three-dimensional transoesophageal echocardiography, the cyst was defined as unilocular and its inner surface was smooth (Fig. 2B). The laboratory workup demonstrated negative markers for serology and negative indirect haemagglutination inhibition test. The patient was then prepared for surgery. During exploration, a pericardial cyst located at the anterolateral surface of the left ventricle extending over the right ventricular outflow tract was detected, measuring  $11 \times 9 \times 8$  cm; needle aspiration yielded a serous bright liquid material. After drainage of approximately 500 cc liquid, an incision was made to the cyst wall and its inner wall was observed to be smooth (Fig. 3). Pathologic examination of the cyst revealed a fibrous outer layer containing mononuclear inflammatory cells covered by a single layer squamous epithelium at the inner surface.



**Figure 1.** Chest X-ray showing an enlarged cardiac silhouette



**Figure 2.** Transthoracic echocardiography (**A**) and real time three-dimensional transoesophageal echocardiography (**B**) revealing an  $11 \times 8.7 \times 8.1$  cm cyst-like unilocular pericardial structure with smooth inner surface



**Figure 3.** Surgical specimen of the large pericardial cyst

## Address for correspondence:

Dr. Beytullah Çakal, Kartal Kosuyolu Yuksek Ihtisas Egitim ve Arastirma Hastanesi, Denizer Caddesi Cevizli Kavsagi, No:2 Cevizli/Kartal, Istanbul 34846, Turkey, tel: +90 216 500 15 00, fax: +90 216 459 63 21, e-mail: bcakal@hotmail.com

**Received:** 29.06.2012 **Accepted:** 04.07.2012

Conflict of interest: none declared