## A cyst within a cyst

### Kist içinde kist

A 31-year-old woman was referred to our hospital for recurrent syncopal attacks. Physical examination was normal except for a 2/6 systolic murmur at pulmonary area. Her chest X-ray and electrocardiogram were also normal. The laboratory workout showed leukocytosis and hypereosinophilia. On transthoracic echocardiography, a cystic lesion with a smooth, distinct border was found next to the right ventricular outflow tract (RVOT) (Fig. 1A, Video 1. See corresponding video/ movie images at www.anakarder.com). Inside the cystic structure, a smaller cyst of 1 x 1 cm dimension was seen (Fig. 1B, Video 2. See corresponding video/movie images at www.anakarder.com). The lesion was compressing the RVOT, and on Doppler examination, a gradient of 30 mmHg was measured at the RVOT (Fig. 1C, Video 2. See corresponding video/movie images at www.anakarder.com). The same lesion was confirmed by 2-D transesophageal echocardiography (TEE) (Fig. 1D, E, Video 3-4. See corresponding video/movie images at www.anakarder. com) but 3-D TEE study could not provide further details about the nature of the cyst (Fig. 1F, Video 5. See corresponding video/movie images at www.anakarder.com). Being endemic in Turkey, Echinococcosis was suspected because of the characteristic appearance of the cystic lesi-



Figure 1. Transthoracic parasternal long-axis view (panel A) showing the cystic mass with an echolucent center compressing the right ventricle. Transthoracic parasternal short-axis view at the aortic valve level (panel B) showing the cyst its inner small cyst (white arrow) and color flow view (panel C) showing the hydatid cyst compressing the RVOT (black arrow). 2-D Mid-esophageal long-axis view (panel D and E) showing the cyst compressing the right ventricle. The cystic mass shown by real-time 3-D TEE (panel F). Cardiac magnetic resonance images (panel G and H) showing the cystic mass with smooth border next to the RVOT. Intraoperative image (panel I) of the intrapericardial mass without invasion into neighboring tissues localized next to the RVOT

Ao - aorta, LA - left atrium, asterisk shows the hydatid cyst, LV - left ventricle, PA - pulmonary artery, RA - right atrium, RVOT-right ventricular outflow tract

on. On cardiac magnetic resonance imaging, the cyst was found to possess a smooth border and no invasion into neighboring structures was noted (Fig. 1G, H). On surgery, median sternotomy was done, and the cyst was found to be situated on the right ventricle under the pericardium (Fig. 1I). The wall was punctured and hypertonic saline and iodine was injected. The same procedure was also applied to the inner cyst, and the two cysts were removed together. Treatment with albendazole was continued for 4 weeks after the operation. The postoperative follow-up was uneventful.

#### Cem Doğan, Ahmet Güler, Ruken Bengi Bakal, Soe Moe Aung Clinic of Cardiology, Kartal Koşuyolu Training and Research Hospital, İstanbul-*Turkey*

Address for Correspondence/Yazışma Adresi: Dr. Ahmet Güler Kartal Koşuyolu Eğitim ve Araştırma Hastanesi, Kardiyoloji Kliniği, İstanbul-*Türkiye* Phone: +90 216 500 15 00 Fax: +90 216 459 63 21 E-mail: ahmetguler01@yahoo.com.tr

#### Available Online Date/Çevrimiçi Yayın Tarihi: 10.01.2012

© Telif Hakkı 2012 AVES Yayıncılık Ltd. Şti. - Makale metnine www.anakarder.com web sayfasından ulaşılabilir.

© Copyright 2012 by AVES Yayıncılık Ltd. - Available on-line at www.anakarder.com doi:10.5152/akd.2012.025

### A giant mediastinal carcinoid tumor that compresses the pulmonary artery and vein

### Pulmoner arter ve vene bası yapan dev mediyastinal karsinoid tümör

A 39-year-old man was admitted with recently initiated complaints of chest pain and dyspnea. He had a history of hypophysis and thyroid operation after being diagnosed with MEN type 1 syndrome including prolactinoma, parathyroid adenoma, gastrinoma and a nonfunctional adenoma on suprarenal glands 3 years before admission. Chest X- ray (Fig. 1, 2) displayed a large mediastinum, computed tomography showed 13x9x11 cm lobulating, heterogeneous hypodense mass in superior mediastinum that compressed left superior pulmonary vein (Fig. 3). There were no metastatic masses in liver or in any other localization.



Figure 1. Anteroposterior chest X-ray view of an enlarged mediastinum



Figure 2. Left lateral chest X-ray view of abnormally dense and widened anterior mediastinum



Figure 3. CT images of a heterogeneous hypodense mass in mediastinum which compresses left superior pulmonary vein

CT - computerized tomography



Figure 4. Transthoracic echocardiography view of a huge hyperechogenic mass



Figure 5. Continuous wave Doppler examination revealing a maximal 25 mmHg of transpulmonary gradient due to the tumoral compression

Transthoracic echocardiography demonstrated a huge mass that compressed pulmonary artery resulting in 25 mmHg transpulmonary gradient (Fig. 4, 5). Pathological evaluation showed parathormone negative, chromogranin positive stained neoplastic cells that eventually proved to be a carcinoid tumor.

Carcinoid tumors are the most common neuroendocrine tumors. They grow insidiously and usually do not cause any symptom. Our case was an extreme sample of carcinoid tumor which was extended to a massive size that caused large vessel compression, and eventually treated surgically without complication.

#### Esra Gücük İpek, Burcu Demirkan, Yeşim Güray Clinic of Cardiology, Türkiye Yüksek İhtisas Hospital, Ankara-*Turkey*

Address for Correspondence/Yazışma Adresi: Dr. Esra Gücük İpek Türkiye Yüksek İhtisas Hastanesi, Kardiyoloji Kliniği, Ankara-*Türkiye* Phone: +90 312 241 52 91 Fax: +90 312 621 35 03 E-mail: esragucuk@hotmail.com Available Online Date/Çevrimiçi Yayın Tarihi: 10.01.2012

© Telif Hakkı 2012 AVES Yayıncılık Ltd. Şti. - Makale metnine www.anakarder.com web sayfasından ulaşılabilir.

© Copyright 2012 by AVES Yayıncılık Ltd. - Available on-line at www.anakarder.com doi:10.5152/akd.2012.026

# Giant pulmonary artery aneurysm due to chronic pulmonary embolus associated with pulmonary hypertension

### Kronik pulmoner emboliye bağlı pulmoner hipertansiyonun eşlik ettiği dev pulmoner arter anevrizması

Aneurysm of the pulmonary artery (PAA) is a rare pathology with unknown natural history. The main causes of PAA are pulmonary hypertension (PHT) secondary to pulmonary embolus or congenital heart diseases with left-to-right shunts. We report a case of giant PAA due to chronic pulmonary embolus associated with PHT in an elderly patient.

An 83-year old male with a known history of multiple episodes of deep venous thrombosis, chronic pulmonary embolism associated with PHT and chronic atrial fibrillation in last five years was admitted with NYHA-3 exertional dyspnea. The physical examination revealed orthopnea, jugular venous distention, ascites and bilateral pretibial edema. Electrocardiography revea-